Why scheduled checkups put patients' health at risk

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Warning to all clinicians

Why scheduled checkups put patients' health at risk

Abstract

Diseases are dynamic phenomena that develop and change over time, with one thing being certain: they do not adhere to a calendar. Dynamic diseases, i.e., de facto, all pathological processes, are those that exhibit changes in their clinical appearance, pathogenesis, and response to treatment over time. The management of dynamic diseases, and thus of diseases per se, poses a major challenge to health care providers because the conventional treatment and control strategies that have come into vogue, based on standard protocols, are not adequate . In many cases, fixed treatment protocols actually impair or even cause death to those who suffer from a disease. This article explores the concept of dynamic disease and the importance of dynamic (flexible) follow-up in the management of such disease, and presents to the public for the first time data from a clinical trial suggesting dramatically worse outcomes in patients with hemorrhoids who were treated and followed-up "on schedule."

Diseases are as dynamic as life itself

Life, and thus diseases as an essential aspect of all life, are characterized by their dynamic nature. Over time, they show changes in their clinical presentation, pathogenesis, and response to treatment. These changes may be due to a variety of factors, including genetic variability, environmental factors, treatment, psychosomatic aspects, neuroimmunological mechanism, the development of resistance to therapy and so forth. The best-known examples of particularly dynamic diseases include all infectious diseases, autoimmune diseases, cardiological diseases, most organ-damaging, metabolic and endocrinological diseases, and cancer.[2,3,5,7,8,9,10] Infectious diseases are classic drastic example of dynamic diseases that exhibit profound changes in their clinical presentation, pathogenesis, and response to treatment. This is also true in the long term, because viruses such as influenza, for example, not only mutate rapidly, leading to the emergence of

new strains that can become resistant to existing treatments or antibodies - the dynamic struggle between the virus and its host is epic in scale under the microscope. However, even without a lab or expensive equipment, the patient senses this battle every second until the pathogen is eliminated from the body. Similarly, antibiotic-resistant bacteria are a growing concern, as they can cause infections that are difficult to treat with standard antibiotics.[2,4] Even a common cold behaves dynamically, as everyone knows who has ever had the sniffles. Autoimmune disorders are another example of dynamic diseases. These conditions are characterized by the immune system attacking the body's own tissues, leading to chronic inflammation and tissue damage. The clinical presentation of autoimmune disorders can vary over time, and the response to treatment may also change. Cancer is yet another and very drastic example of a dynamic disease. Cancer cells can mutate and evolve over time, leading to changes in their clinical presentation and response to treatment - or not and kill the patient. For example, some cancers may initially respond to chemotherapy, but eventually develop resistance to treatment or behave in other unpredictable ways.[3,7]

Diseases do not understand the concept of a calendar

For reasons that make no sense neither theoretically nor in clinical reality, standard treatment and control protocols against the enemy (pathogens, derailed immune responses, mutations, etc.) are being developed based on the assumption that diseases are either static entities that do not change over time or progress in a known and foreseeable manner, i.e., they as if they were predictable. But they are not.

As already mentioned, diseases are not mechanical entities, but part of the most flexible and adaptable system there is: nature. Or, more recently, also alternatively of the Wuhan Institute of Virology, the latter as pars pro toto. Pathogens exhibit changes in their clinical presentation, pathogenesis, and response to treatment over time - sometimes even in fluctuating, unpredictable, or even erratic ways. As a result, standard protocols may not be effective in managing most conditions we know of. For example, in the case of infectious diseases, standard protocols may recommend the use of specific antibiotics or antiviral drugs. However, if the infectious agent has developed resistance to these drugs, the treatment may be ineffective. Similarly, in the case of autoimmune disorders, standard protocols may recommend the use of immunosuppressive drugs. However, these drugs may have side effects and may not be effective in managing the condition over the long term because cascade effects might change the biophysical basis of the condition in question. Given the limitations of standard protocols in managing dynamic diseases, it is essential to adopt a dynamic and highly flexible approach for follow-up strategies and treatment. Dynamic follow-up involves regularly monitoring the patient's condition based on his/her clinical course and adjusting the treatment plan as needed based on changes in the clinical presentation, pathogenesis, and response to treatment. This, however, demands a close monitoring of the patient and easy as well as fast access to the treating doctor while modern medicine is - conflict with this model - shortening the interaction between the patient and his physicians more and more every year because time is money, even in medicine. This is a dangerous path.[2,4,5,8,9,11]

For example, in the case of infectious diseases, dynamic follow-up may involve regularly testing the infection status, inflammation status, and adjusting the treatment plan based on the results, however, not (only) based on a published schedule but on a patient’s clinical course. Similarly, in the case of autoimmune disorders, dynamic follow-up may involve constant monitoring the patient's inflammation levels and adjusting the treatment plan as needed, not as scheduled.

Dynamic follow-up also involves a extremely collaborative approach and constant direct contact between the healthcare provider and the patient. The patient should be encouraged to report any changes in their symptoms or response to treatment, and the healthcare provider should be open to adjusting the treatment plan as needed based on these

reports immediately. The digital tools now available and point or care test devices make this drastically different approach possible. However, almost no clinician applies a dynamic approach. In conservative medicine, there is still the utterly absurd belief that pathologies follow well-described patterns that allow for scheduled treatment and follow-up. No belief is as false in today's medicine as this one, and if we as clinicians do not change our course in the direction of biological realities in this regard, sooner or later we expose ourselves to ridicule. Clinicians have to understand that dynamic diseases, especially the more rare ones, require a extremely flexible approach to follow-up and treatment. Healthcare providers must adopt a dynamic approach to follow-up, involving regular monitoring and adjustment of the treatment plan as needed in a certain case, at a certain time, depending on the highly individual course the illness is taking in a patient. This has become possible thanks to digital modern digital monitoring devices and point of care tests. The tools exist, however, the will to use them is still not there.[8,9,10,11]

The treating physician plays a crucial role in managing dynamic diseases through the implementation of a dynamic (flexible and easily accessible) follow-up approach. He/she is responsible for monitoring the patient's condition by being personally accessible, mentally ready to adjusting the treatment plan as needed, and collaborating with the patient to achieve the best possible outcomes. The physician's role in dynamic follow-up involves several key responsibilities.

Firstly, the physician must have a deep understanding of the nature of dynamic diseases and the factors that contribute to changes in the clinical presentation, pathogenesis, and response to treatment. This knowledge enables the physician to anticipate changes in the patient's condition and proactively adjust the treatment plan.

Secondly, the physician must regularly monitor the patient's condition through modern technologies (telemedicine) and point of care tests to be used by the patient at home. This monitoring must not be conducted at regular intervals only but has to be tailored to course of the disease as well as of the specific needs of the patient based on the nature of his/her condition.

Thirdly, the physician must be open to adjusting the treatment plan as needed based on (sudden) changes in the patient's condition with alternative therapeutic options in mind at all times. This may involve changing the dosage or frequency of medication, switching to a different medication, or combining multiple treatments. As a clinician one must be proactive in identifying changes in the patient's condition and taking action to adjust the treatment.

Finally, the physician must remain in a permanent dialogue with the patient to ensure that the treatment plan is aligned with the patient's goals, values and preferences. This collaboration involves providing the patient with clear and accurate information about their condition and treatment options, listening to the patient's concerns and preferences, and adjusting the treatment plan based on the patient's feedback.

In summary, the treating physician's role in managing dynamic diseases through dynamic follow-up involves deep knowledge of the disease and its changing nature, constant monitoring of the patient's condition, accessibility, flexibility, proactive adjustment of the treatment plan, and collaboration with the patient to achieve the best possible outcomes. By adopting a dynamic approach to follow-up, the physician can improve the patient's quality of life, enhance the effectiveness of the treatment, and increase the likelihood of achieving a successful outcome.

One chronically underestimated danger of attributing certain symptoms only to the most common illnesses is another high risk thinking, leading to misdiagnosis and/ or maltreatment and/ or death or a patient.[1,2,3,7,9,10,11] Many diseases can present with similar symptoms, and if the physicians are only considering the most common causes, which is the case even in 2023 (maybe now more than ever), they may overlook other possible reasons for a certain symptom or syndrome. This can result in delays in diagnosis and treatment, which can have significant consequences for the

patient's health outcomes. For example, a patient presenting with a persistent cough and fatigue may be attributed to a common cold, leading the physician to prescribe symptomatic relief medication. However, if the patient's symptoms persist or worsen, the physician should consider other diagnoses such as tuberculosis, pneumonia, or lung cancer. If the physician fails to consider these possibilities, there is a risk that the patient's condition may worsen, leading to complications and poorer outcomes. Sounds simple, should be standard, is, however, not the general standard anymore.[5,9,11]

Another danger of attributing certain symptoms only to the most common illnesses is the potential for under-diagnosis of rare or emerging diseases. Rare or emerging diseases may not be as well-known or studied as common diseases, and physicians may not be familiar with their clinical presentation or appropriate treatment options. If a physician is only considering the most common causes of a symptom, they may overlook the possibility of a rare or emerging disease. This can result in delayed diagnosis and treatment, which can have serious consequences for the patient. For example, in recent years, there has been an increase in cases of tick-borne illnesses such as Lyme disease. These diseases may not be as well-known as more common illnesses, and physicians may not be familiar with their clinical presentation. If a patient presents with symptoms such as fatigue, joint pain, and fever, and the physician only considers common causes such as the flu, they may overlook the possibility of a tick-borne illness. This can result in delayed diagnosis and treatment, which can lead to long-term complications.[1]

So, attributing certain symptoms only to the most common illnesses can be dangerous as it can lead to misdiagnosis and under-diagnosis of other possible causes. Physicians should be aware of the potential for a variety of illnesses to present with similar symptoms and should consider a broad range of diagnoses when evaluating a patient's symptoms. A flexible approach to follow-up that involves regular monitoring and adjustment of the treatment plan based on changes in the patient's condition can help to ensure that the patient receives appropriate care and achieves the best possible outcomes. The diagnostic process and treatment of non-standard or rare diseases must be based on logic deduction grounded in biological and biophysical axioms. This approach allows physicians to make an accurate diagnosis and develop an appropriate treatment plan, even for conditions that may be uncommon or have atypical clinical presentations. Biological and biophysical axioms are fundamental principles that underlie the functioning of living organisms and biological systems. These principles can be applied to understand the underlying pathophysiology of diseases and to develop hypotheses about the cause of the patient's symptoms. By using a deductive reasoning approach, physicians can use these principles to rule out certain diagnoses and to develop hypotheses about the underlying cause of the patient's symptoms. When a patient presents with unexplained muscle weakness, a physician may use the biological axiom that muscle contraction is dependent on the release of calcium ions from the sarcoplasmic reticulum. If the physician observes that the patient's serum calcium levels are low, they should remember that hypoparathyroidism might be the correct diagnosis, a condition that can cause low calcium levels and muscle weakness. This hypothesis can be further tested through additional diagnostic tests such as parathyroid hormone levels or genetic testing.

Similarly, biophysical axioms can be used to develop hypotheses about the underlying cause of a patient's symptoms. For example, in the case of a patient presenting with unexplained vision issues, even a general practitioner or ophthalmologist must be aware of the biophysical axiom that changes in the electrical activity due to a tumor may cause problems with the eyesight. This thought can be further tested through imaging studies such as magnetic resonance imaging (MRI) or computed tomography (CT) scans. In reality such patients get a new pair of glasses, some eye drops and the recommendation to reduce stress. Of course, in many such cases the doctors react correctly. However ‘many such’ is not enough. In medicine there is no room for mistakes. Once a correct diagnosis has been made, the responsible clinician has to develop an appropriate treatment plan based

on the underlying pathophysiology of the disease. This approach allows for a more targeted and effective treatment, even for rare or uncommon diseases.[8-11]

For example, in the case of a patient with hypoparathyroidism, treatment may involve calcium and vitamin D supplementation to correct the underlying deficiency. Similarly, in the case of a patient with a brain tumor, treatment may involve surgical resection or radiation therapy to remove or shrink the tumor. In conclusion, a deductive reasoning approach based on biological and biophysical axioms is essential for the diagnostic process and treatment of non-standard or rare diseases. By applying these principles to understand the underlying pathophysiology of diseases, physicians can develop hypotheses about the cause of the patient's symptoms and develop an appropriate treatment plan. This approach allows for a more targeted and effective treatment, even for rare or uncommon diseases. The same approach, based on biological and biophysical axioms, applies to the treatment of disease, including dynamic disease.

Treatment of disorders is most effective when it is based on a deep understanding of the biophysical details of the relevant pathophysiology causing the disease being treated and the mechanisms of action of the treatments. Biological and biophysical axioms can provide a framework for understanding the mechanisms of action of drugs and other treatments. By truly understanding the underlying principles of drug action, physicians can develop hypotheses about the effectiveness of different treatments for different diseases. For example, in the case of cancer, the biological axiom that cancer cells divide uncontrollably can be used to develop targeted therapies that block the signaling pathways that promote cell division. Similarly, in the case of autoimmune disorders, the biophysical axiom that inflammation is caused by the immune system can be used to develop immunosuppressive therapies that target specific components of the immune system.

The use of a deductive reasoning approach based on biological and biophysical axioms can also help to identify new treatment options for diseases. By truly understanding the underlying pathophysiology of a disease, physicians can develop hypotheses about the effectiveness of new treatments that target specific pathways or mechanisms. This approach has led to the development of many new treatments for diseases, including targeted therapies for cancer and biologics for autoimmune disorders. Furthermore, a dynamic (flexible) approach to treatment is essential for the management of dynamic diseases. As discussed earlier, dynamic diseases can exhibit changes in their clinical presentation, pathogenesis, and response to treatment over time. A dynamic approach to treatment involves regular monitoring of the patient's condition and adjustment of the treatment plan as needed based on changes in the patient's condition. For example, in the case of infectious diseases, the treatment plan may need to be adjusted based on changes in the infectious agent's sensitivity to different drugs. Similarly, in the case of autoimmune disorders, the treatment plan may need to be adjusted based on changes in the patient's inflammation levels or response to medication. In conclusion, a deductive reasoning approach based on biological and biophysical axioms is essential for the treatment of diseases, including dynamic diseases. This approach provides a framework for understanding the mechanisms of action of treatments, identifying new treatment options, and developing a dynamic treatment plan based on changes in the patient's condition. By adopting this approach, physicians can improve the effectiveness of treatments and achieve the best possible outcomes for their patients.[1-11]

Worse outcomes despite better and more modern medicine

Medicine has undergone significant changes over the past century, with advances in technology, science, and specialization leading to both progress and challenges in the field. One significant change is the shift towards a more specialized approach to medicine in the past fifty years, with the development of subspecialties within various fields of medicine. While specialization has led to significant progress in the treatment of

common diseases, such as cardiovascular disease and diabetes, it has also led to a deterioration in the treatment of complex syndromes. This is because specialization often involves a focus on a specific area of medicine, leading to a reduction in the ability to treat patients as a whole. In the past, medicine was more individualized, with physicians taking a holistic approach to patient care. This approach involved considering the patient's physical, psychological, and social well-being when developing a treatment plan. The physician would also take into account the patient's unique circumstances, such as their age, gender, and medical history when making a diagnosis and a tailored treatment plan.[5,6,8,9,10]

This highly individualized approach allowed physicians to develop a more nuanced understanding of complex syndromes, such as chronic fatigue syndrome or fibromyalgia, and to develop effective treatment plans that took into account the patient's unique situation. However, the shift towards specialization has led to a reduction in the ability of physicians to take a holistic approach to patient care, leading to challenges in the treatment of complex syndromes. Specialization has also led to a reduction in the ability of physicians to communicate and collaborate effectively with other specialists, leading to challenges in the coordination of care for patients with complex syndromes. For example, a patient with chronic fatigue syndrome may need to see a specialist in endocrinology, neurology, and rheumatology, among others, leading to a lack of coordination and a drastic reduction in the quality of care. Furthermore, specialization has led to a reduction in the ability of physicians to develop expertise in areas outside their specialty, leading to a lack of knowledge and understanding of complex syndromes that may have an impact on multiple areas of the body.[2,5]

So, while specialization has led to significant progress in the treatment of few very common diseases, it has also led to a deterioration in the treatment of most other conditions, despite all modern diagnostic tools and innovations of the pharmaceutical industry. This is because specialization often involves a reduction in the ability to treat patients as a whole, leading to challenges in the diagnosis, treatment, and coordination of care for patients with a complex constellation of symptoms caused by a single cause. A more individualized and team-oriented approach to medicine, which takes into account the patient's unique circumstances and considers the patient as a whole, is highly necessary to address these challenges and to improve the quality of medical care. In conclusion, the management of dynamic diseases requires a dynamic (flexible) approach to follow-up and treatment. Physicians must have a deep understanding of the underlying pathophysiology of diseases, which can be achieved through a deductive reasoning approach based on biological and biophysical axioms. This approach allows physicians to remain open-minded for fast changes regarding treatment plans and an adjustment of the therapeutic intervention. However, the shift towards specialization in medicine over the past 50 years has led to challenges in the treatment of complex syndromes. Specialization has led to a reduction in the ability to treat patients as a whole, leading to challenges in the diagnosis, treatment, and coordination of care for patients with complex illnesses. A more individualized approach to medicine, which takes into account the patient's unique circumstances, the dynamic interaction patient vs. illness, and considers the patient as a whole; such an approach is desperately needed to get better outcomes.[2,3,4,5,7,9,10]

Study with 890 patients suffering from hemorrhoids

Even patients with seemingly simple diseases benefit from deductive diagnostics and dynamic-flexible treatment. This has been shown in a study by the research group led by Shirazi and colleagues:[1] 450 patients of both sexes (age 18 to 92 years, average age 49 years) with hemorrhoids stage I to III were divided into two groups of 225 each.

Group A was diagnosed and treated according to the guidelines of several European professional societies. The doctor-patient relationship was maintained for three years. There were no premature terminations. Group B was diagnosed according to the principles of

deductive diagnostics. The doctor-patient contact was completely flexible in this collective. As soon as a patient felt that he needed a timely consultation with the attending physician, he was immediately seen by his/her specialist and, if necessary, treated, regardless of fixed follow-up appointments. Parallel to group A over three years, with no premature discontinuations.[1]

Group A:

225 patients with hemorrhoids grade one to three.

I. Initial examination including rectoscopy (up to approx. 30 cm).
II. M2-PK stool tests at initial check-up.
III. education about colorectal cancer screening and the possibility of free colonoscopy. Information flyers about the most important anal diseases were provided in written form, written in a way that a layman could understand them easily.
IV. Treatment planning and recommendations
V. Treatment and or/treatment cycles.
VI. Scheduled follow-up visits (with and without treatments) at weeks 6, 15, 40, and 75.

The patients were assigned appointments for the scheduled follow-ups. During the intervals between the scheduled appointments (mentioned above), subjects in group A were carefully instructed to treat mild symptoms with over-the-counter medications from a pharmacy or to contact their primary care physician/ nurse practitioner - unless the symptoms became so severe that an unscheduled visit to a specialist was unavoidable.

Data or Group A:

- Misdiagnosis rate at initial examination 1,9% (fissures, acne inversa, fistulas, fibromas)
- Cancers of various types which occurred after completion of the initial treatment, located between the anus and the rectum: 5 (grade I, II and IV).
- Free of any symptoms after 3 years (subjective and in conjunction with a careful rectal examination) 61%.
- The number of contacts (with and without further treatments) between patient and specialist during the entire study period was 7.29

Group B:

225 patients with hemorrhoids grade 1-2.

I. Initial examination including rectoscopy (up to approximately 30 cm).
II. M2-PK stool test at initial check-up, education about colorectal cancer screening and the possibility of free colonoscopy. Information flyers about the most important anal diseases were provided in written form, written in a way that a layman could understand them easily.
III. Treatment planning and recommendations
IV. Treatment and or/treatment cycles.
V. No fixed scheduled follow-up visits. Subjects were instructed to see their treating specialist (or his equally highly qualified representative) immediately if they noticed any worsening or change in their symptoms.

- Misdiagnosis rate at initial examination 2,7% (fissures, acne inversa, fistulas, fibromas).
- Cancers of various types which occurred after completion of the initial treatment, located between the anus and the rectum: 2 (grade 0 and II).
- Free of any symptoms after 3 years (subjective and in conjunction with careful rectal examination) 88.2%.
- The number of contacts (with and without further treatments) between patients and specialists during the entire study period was 2,25.

The blend of empowering the patients through education, self-determination, and guaranteed prompt access to a proctology specialist at the time of complaints (group B) proved to be highly significantly superior to the traditional approach with fixed appointments (group A).

Contrary to all expectations, patients in group B ("access to specialist whenever the patient wants it") not only had significantly better clinical outcomes, but also represented a lower burden (time, costs, resources) for the health care system than group A ("limited access to specialist with fixed appointments").

Conclusion

In summary, the treatment of disease requires a careful balance between a deductive approach to thinking based on biological and biophysical axioms and an individualized approach that considers the patient as a whole. With this balanced approach, physicians can improve the effectiveness of treatments and achieve the best possible outcomes for their patients. However, if healthcare professionals continue to cling to checklist diagnoses and scheduled follow-up visits according to predetermined intervals, they will have completely lost the core of their raison d'être. A disease does not follow a calendar and fixed timed follow-ups, most of which are not even evidence-based. All guidelines should therefore be checked to identify where ‘medicine according to a timetable” has crept in and purged of this life-threatening nonsense accordingly.

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Conflicts of interest

None declared.

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