



Care pathway for the elderly: detailing the model

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Abstract

Greater knowledge of patient history among health professionals leads to improved results. This is how the contemporary and resolute models of care recommended by the most important national and international health agencies work. Current models of care stem from a time when Brazil was a country of young people and acute diseases. But the desire for a higher quality, more efficient and more cost-effective model of care is not only a Brazilian phenomenon. The whole world is debating the issue, recognizing the need for change and proposing improvements in their health systems. The same thing is occurring here. The theme of this text, as Dr. Martha de Oliveira, director of the Agência Nacional de Saúde Suplementar (National Agency Of Supplementary Health) (ANS) comments below, is in agreement with this movement. We advocate a logic that prioritizes low-intensity interventions and constant monitoring, with the doctor responsible for a portfolio of clients who he or she accompanies throughout the different care settings. The text proposes integrated medical treatment, a flow of educational actions, health promotion, the prevention of preventable diseases, the postponement of illness, early care intervention and rehabilitation from sickness. It is time to change and innovate!

Keywords: Health Services for the Aged. Integral Health Care. Monitoring. Care Pathways.

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INTRODUCTION

Elderly persons have a number of well-established characteristics – more chronic diseases and frailties, greater expenditure and less social and financial resources. Even without chronic diseases, aging involves functional loss. With so many adverse situations, care for the elderly must be structured differently from that of adults and provide special assistance. The current provision of health services fragments care for the elderly, with multiple specialist consultations, a lack of information sharing, and numerous drugs, tests and other procedures. This overloads the system, with a strong financial impact at all levels, and does not generate significant benefits for quality of life¹⁻³.

Care for the elderly must be structured differently from care given to adults. Our care models date from a time when Brazil was a country of young people, while today we are a young country filled with grey hair. .

The demographic projection for the next few years predicts an older population, and so the current scenario is likely to worsen if the model remains unchanged. Increased longevity leads to greater use of health services, generating more costs, threatening the sustainability of the system and generating new demands. Today's care models are from the time when Brazil was a country of young people and acute diseases, while now we are an old country with chronic diseases. Actions based on health promotion and education, the prevention and delay of the onset of diseases and frailties, and the maintenance of independence and autonomy must be expanded^{4,5}.

A contemporary elderly healthcare model should bring together a flow of actions based on education, health promotion, the prevention of preventable diseases, delay of the onset of illness, early care and rehabilitation from diseases. A care pathway² for the elderly that aims to exhibit efficacy and efficiency must presuppose an articulated, referenced network with an information system based on this logic.

Currently, health systems operate with few points of care, which do not function in an integrated manner. Patients generally enter this disjointed network at an advanced stage. The entry point is often the hospital emergency room. Such a model, in addition to being inadequate and anachronistic, has a very poor cost-benefit ratio, as it is hospital-centered and makes intensive use of expensive technologies. Its failure, however, should not be attributed to the users, but to the care model itself, as there is an overburdening of users at more complex levels due to a lack of care at earlier levels.

One of the problems most current care models face is the exclusive focus on disease. Even when a program based on the logic of anticipating illness is offered, the proposals are geared primarily towards the reduction of a certain disease, overlooking the fact that when a chronic disease is established the objective should not be a cure, but the stabilization of the clinical profile and constant monitoring to prevent or ameliorate functional decline⁶.

Studies show that care must be organized in an integrated manner and should be coordinated throughout the duration of the care in a logic-based network, from entry into the system to care at the end of life.

Therefore, new models of healthcare for the elderly should present a proposal for a care pathway focusing on actions of education, health promotion, the prevention of preventable diseases, the postponement of diseases, early care and rehabilitation⁷.

The model is based on the early identification of the risks of frailty of users. Once risk is identified, the priority is early rehabilitation to reduce the impact of chronic conditions on functionality; seeking to intervene before harmful effects occur. The idea is to monitor health, not disease, with the intention of postponing illness so that the elderly can enjoy their remaining time. Thus, the best strategy for the proper care of the elderly is based on the permanent monitoring of their health and keeping them under continuous observation, varying only the levels, intensity and context of the intervention⁸.

A set of healthcare actions can therefore be imagined, structured to meet the particular health condition of the individual, based on risk assessment. This risk consists of clinical, social, economic and environmental factors, among others.

Hierarchical levels should be an integral part of the treatment plan and the care pathway to be followed by the user. This integration defines the success of the model, including from a financial perspective.

The hierarchy of the network provides at least two fundamental benefits for the care of the elderly: the reduction of iatrogeny and the organization of the flow of care. Clinical guidelines and protocols are also essential for the construction of the therapeutic plan. They should direct good practice, be based on the best evidence available and be appropriate for each clinical situation. The therapeutic plan guides the flow of the care pathway, and establishes the care route according to the needs of the patient⁸.

When seeking to increase the effectiveness of the care model, it is necessary to increase information

management, value scientific knowledge and reduce the absolute power of machines and technology. It is necessary to change the logic of our now outdated logic of care. Managers should therefore seek interventions aimed at reducing the use of advanced care settings (including the hospital) and expand the provision of care in lower-intensity settings (including integrated care centers), which should where possible have a preventive basis and be outside the hospital environment.

Some suggestions for care pathway models already exist. What is important is that each health institution has knowledge of its users, their profile and their needs, in order to construct the best way to organize the delivery of its services.

The model we propose is composed of five hierarchical levels of care - reception, an integrated care center, geriatric outpatient care, and complex short and long-term care (Figure 1). But it is in the first three levels, in low-intensity care settings, that the difference is clearest⁹.

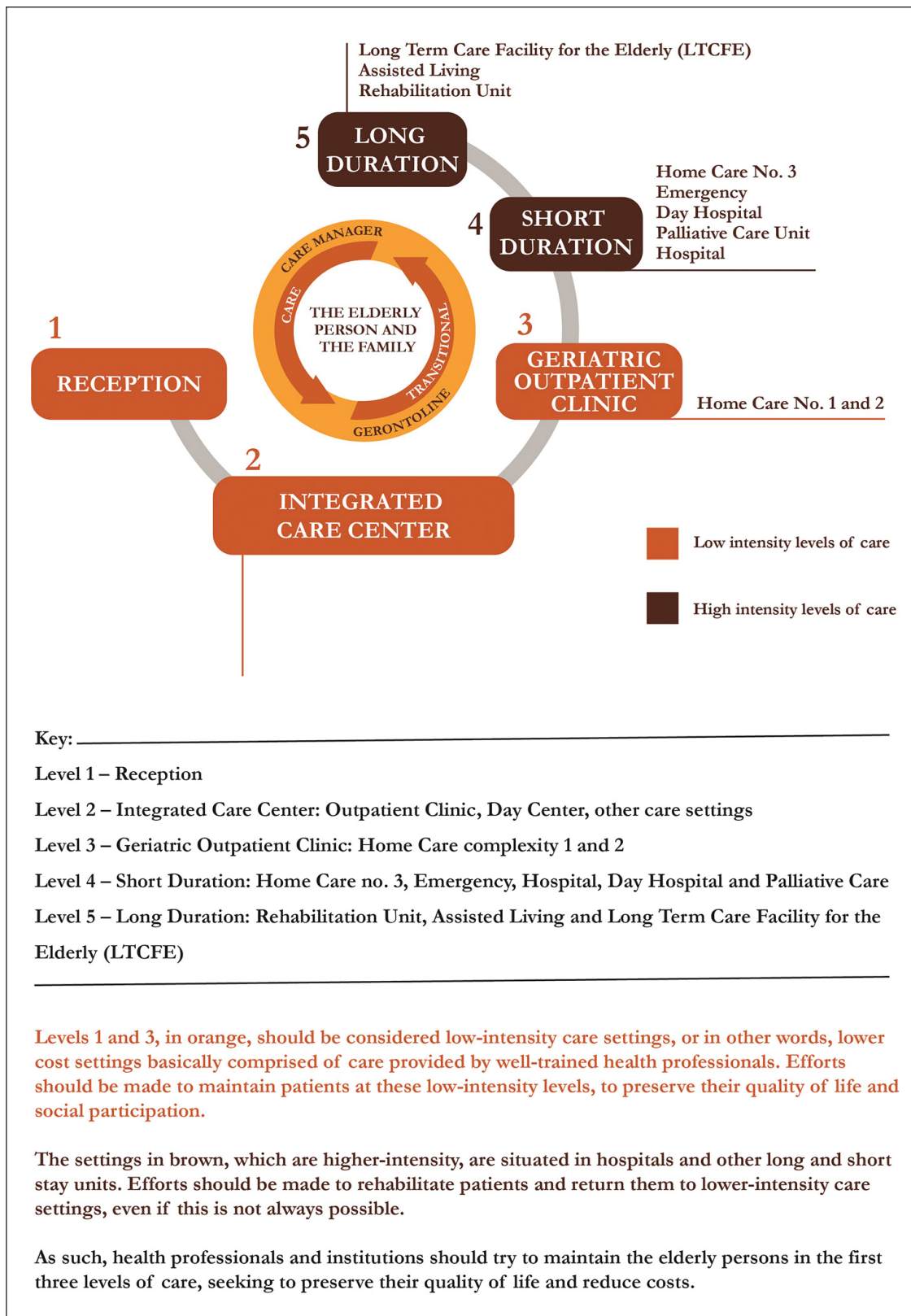


Figure 1. Brazilian mode of integrated care for the elderly. Rio de Janeiro, RJ, 2016.

The model should feature several care settings prior to the hospital, which is mistakenly seen as the ideal location for healing. This is a conceptual error. The hospitalization of the elderly should occur only at the acute moment of chronic illness, for the shortest possible time, or in cases of emergency^{7,10}.

The entry point to the system should be a location that allows the client and their family to feel protected and supported. It is in this setting of first contact that the user is informed of all the care possibilities and pathways. Reception is fundamental for those arriving and a stimulus for developing trust and fidelity.

The proposal of care for the elderly should be understood as a strategy to establish care pathways, organizing the movement of individuals through the system according to their degree of frailty. The identification of risk and the integrality of care at the different points of the network are key to this model. Hierarchization does not presuppose an evolutionary path between the care levels of the model, despite expected trends. The stages cannot be absolutely fixed as there is the possibility of reverting disability and the return to a less complex level, depending on the situation.

Better care results and economic-financial outcomes are needed. What is required? That everyone should understand the need for change and allow themselves to innovate. Innovate in care, innovate in remuneration and innovate in the evaluation of the quality of the sector. Innovating often means recovering the simplest care and values that have been lost within our health system.

The necessary model

There are four aspects that underlie the entry point (or level 1) of the model: reception, fidelity, integrality and assessment of the risk of frailty/disability.

In the model constructed, levels 1 to 3 in orange (Figure 1) are low-intensity settings, or in other words involve lower costs and are largely composed of care by well-trained health professionals. Efforts should be made to maintain patients at such low intensity levels

to preserve their quality of life and social engagement. The brown settings, which involve more serious cases, are expensive and include hospital and the other long stay facilities. In these settings, it is preferable to rehabilitate the patient and transfer them to low-intensity settings, even if this is not always possible. Efforts should be made to keep the elderly within the first three levels of care, to preserve quality of life and reduce costs. The goal is to concentrate more than 90% of the elderly in these settings¹⁰.

Care models for this age group should be person-centered, considering the specific needs of individuals. Care should be managed from the moment of entering the system to the end of life, with constant monitoring. We know that the elderly face specific challenges due to chronic diseases and bodily and social frailties⁵. The graphic reproduction in Figure 1 helps to explain important aspects of the proposed model. Entry via Level 1 (reception) guarantees conscious access to the system, a beginning based on the transparency of the rules of the plan, grace periods, rights and responsibilities, the care offered, and bonuses and rewards. It is, therefore, the entry point, a crucial moment for establishing empathy and trust, fundamental elements of the fidelity of the user.

Another important differential is the proposal of registering the care pathways of patients through a comprehensive information system, which will record not only the clinical evolution of the elderly person, but also his or her participation in individual or collective preventative actions, as well as the support of the care support manager and the phone calls made to or by the “GerontoLine” (the name we have given to a qualified and resolute call-center, which will be discussed later). This allows a sharing of information, enabling a more complete evaluation of the individual and including the medical records of the hospital unit, governed by specific norms.

The care support manager is a health professional, usually a nurse, who receives and accompanies the elderly and his or her family from level 2 (Integrated Care Center). The brief instrument of risk identification carried out at admission provides a monitoring ground zero and sets a parameter for monitoring the therapeutic plan between the different points of the network. This professional takes care of the transition

of care between the services and reassesses annually, or when necessary, the functional capacity of the elderly person, encouraging participation in the care process through the interlocution between the discourse of care and the patient, who is usually in a situation of frailty. To maintain quality of care, it is recommended that each care support manager has up to 300 elderly persons under his or her responsibility (for a 20-hour workweek, we suggest a portfolio of 300 customers) as a way of ensuring the trust and bonding of the elderly, values inherent in qualified care⁶.

Level 2 is where various actions of education and the promotion and prevention of health are integrated through an outpatient clinic for low-risk elderly people, a cohabitation and social center, rehabilitation services, care and self-care support services, family support and the location where the elderly person can meet his or her care support manager.

The "GerontoLine" is a support service where the elderly persons and their families feel protected, have their needs met and any doubts about the care they are receiving clarified. It should act as a differential, playing the role of facilitator and reinforcing agent in the company-user relationship. The team of attendants should be formed by qualified personnel, under the coordination of a professional with training in psychology, whose role will be to talk to the client and meet their needs. The prerogative is that every situation should have a satisfactory solution. If the attendant is unable to offer a response in the first instance, he or she should call back later with the answer. The "GerontoLine" should be an effective communication channel, to support care and the other services offered.

The importance of a multidisciplinary team composed of a physician, nurse and social worker is emphasized at level 3 (geriatric outpatient clinic). They perform multidimensional geriatric assessment, which will allow for specific interventions where required. This evaluation considers the medical, care, social, environmental, cognitive, affective, religious belief and economic factors that make up the therapeutic plan, which is constructed collectively and discussed with the health team and the care support manager. This level is also where low and medium complexity home care is located.

With respect to the relatives of the elderly person, different models with varied participation arrangements exist – some elderly people live alone, without support from a family network. This does not necessarily mean having no friends or colleagues; some live with partners; some are cared for at a distance; and there are those whose care relationships are based on moral obligations, without affection. Support should not be restricted to blood relations, but be extended to those who live or share their lives with the elderly.

It should be noted that these features are absent in most elderly care models in Brazil today. When properly recorded in a single information system, they provide important information for care, because the more the health professional knows about the history of his/her patient, the better the results will be. This is how contemporary and resolute care models should function¹¹.

The pursuit of excellence and innovative practices must be ongoing and represents a challenge that goes beyond the knowledge of biological sciences. Interlocution with the social and economic sciences should be permanent, as a way of maintaining more efficient, resolute, higher-quality, lower-cost care models that allow inclusion and the reduction of risks^{12,13}.

The geriatrician should have a portfolio of clients. For each portfolio there should be a pairing formed by the doctor and the nurse. The nurse is the care support manager, responsible for monitoring users and supporting the doctor, the elderly person and his or her family. With an efficient information system, a qualified "GerontoLine", a care support manager and a doctor with a client portfolio, the chances of success are much greater. The remuneration model should stimulate the efficient performance of professionals. After all, the best plan is one where everyone wins!

Reception: the beginning of the process

We detail here the proposal for the first level, which is the entry point to the system, the place where reception and registration take place and the beginning of the process of monitoring the health profile of the elderly person^{14,18}.

Our model consists of five levels. Level 1 is reception. This stage makes all the difference and is fundamental if elderly persons and their families are to develop confidence in and subsequently fidelity towards the system. The care model should be presented during the first contact with the company. The approach of the professional at the entry point should be educational, with information about the form of care, the logic of the interventions and the actions available and explanations of the proposed treatment plan based on a model of promotion and prevention and differentiated hierarchical levels¹⁸.

It is of fundamental importance that this moment is well structured and provides confidence and a positive impression of the care proposal of the company. It is here that the individual is informed about the differentials of the model – integrality, his or her own attending physician, individualized monitoring through a care support manager, the "GerontoLine", constant evaluations, the health team and other factors, rather than mere clinical care. One important clarification relates to the patient's doctor. This model is based around the centrality of the managing doctor or attending physician. This professional is the driver of the process. If he or she considers the opinion or intervention of a specialist from a particular area necessary, the attending physician can refer the patient to a specialist. The progress of the case, however, is the responsibility of the general practitioner. After consultation with the specialist, the information and actions taken will be recorded in the patient's unique medical record, and the elderly person will return to his or her doctor¹⁵.

In treatment plans in other countries, the general practitioner or family doctor deals completely with 85% to 90% of his or her clients without the need of a specialist. In addition, the attending physician can utilize health professionals with specific training (in nutrition, physiotherapy, psychology, or speech therapy). Therefore, the client will have a much larger range of professionals at his or her disposal, while the attending physician remains the doctor who provides guidance and referral. There is an excess of consultations carried out by specialists in Brazil, as the current care model

prioritizes the fragmentation of care. This problem is demonstrated by comparisons with the National Health Service (NHS) in the UK, where the central organizational figures are general practitioners (GP), generalist doctors with a high resolute capacity, favoring the establishment of patient-professional fidelity. The American model, on the other hand, opts for referral to numerous medical specialists. Two wealthy countries, therefore, with long medical traditions, use different models that provide quite different results¹⁶.

We ask for customer fidelity to our care proposal. But, what do we offer? We propose a REWARD for those who adhere to this healthcare plan. Financial incentives through the granting of rewards are very efficient, as EVERYBODY benefits, the client through the improvement in his or her health and the company through the reduction of costs.

The beginning of this new relationship should be based on technical aspects of care, in addition to the administrative and financial issues inherent to the contract - nothing should be omitted. The initial link must be based on trust and transparency, so that the user can decide whether or not to participate, as membership implies bonuses and rewards linked to the use of services, such as incentives granted by the health plan and encouraged by the Agência Nacional de Saúde Suplementar (the National Agency of Supplementary Health) (ANS). The refusal to participate is the right of the client and does not preclude his or her admission to the plan at a later date. The same is true for elderly customers who are already users of the company, who can sign up to this new product.

The beginning of the process occurs when the new customer is invited to learn about our proposals and hear the explanations of a trained health professional, who performs a much broader role than that of a mere health plan sales broker. However, if the elderly person is already a customer of the company and is changing products, the invitation to join can take place during an outpatient visit or at the hospital. The health professional responsible for the reception of the client should go to where he or she is being treated, as a way of capturing and expanding the coverage of participants in the new care proposal.

The first consultation should be performed by a health professional with training in geriatrics or gerontology, usually a nurse, who will explain the care pathway and its various treatment settings, establishing a relationship of trust between the user (and their family) and the proposed care model. This professional will give a broad exposition of the proposed actions, emphasizing, above all, the promotion of health and the prevention of diseases, as well as the care pathways of the network, allowing the user a comprehensive understanding of the model. It is necessary to detail to users in a clear and didactic way the various procedures that will be performed. We believe these are differentials which are beneficial and aim to improve the quality of life and health of the elderly, in the same way that the participation of the elderly persons should be encouraged, as they themselves are part of this health care model.

It is important, however, that there is a doctor present in the reception unit, in case doubts arise or in the event that a user does not accept certain information about his illness. In this type of conflict (which is rare, but can occur), the doctor must intervene. Trust in and fidelity towards the system are consequences of the user's perception about how much he or she is respected and what is being offered to him or her. There are advantages for both sides here: the elderly persons perceive their health to be well cared for and feel protected, while the operator obtains fidelity at lower costs.

Due to society's lack of awareness about this mode of care, many patients and their families may be in doubt and refuse the product. It is important to stress that no users should be obliged to participate in the care proposal offered. In this case, conventional health plans should be used, and the healthcare provider cannot refuse those who do not wish to participate, as determined by Law No. 9,656, dated June 3, 1998, which provides for private health insurance plans and insurance, ratified by ANS Normative Ruling No. 27, October 6, 2015, which prohibits the selection of risks by health plan providers, both in the contracting and the exclusion of beneficiaries¹⁷.

Educational materials should also be available in the reception area so that, counseling on chronic pathologies such as hypertension, diabetes and osteoarthritis, as well as the safe use of medication,

healthy nutrition, environmental safety, physical activity and vaccine guidelines can begin. During reception, a single, longitudinal and multi-professional electronic record will be opened. This will store the information from all the care settings within the care model, from the first contact to palliative care in the final phase of life. While the record should contain information about the clinical history and physical examinations of the elderly patient, it should also include information about his or her daily life, family, social support, and other factors. The medical records should also include the records of other non-medical professionals, such as physiotherapists, nutritionists and psychologists.

The participation of the family, the explanation of the activities of the "integrated care center" (level 2, to be explained) and the epidemiological screenings resulting from the services provided are other important differentials of this product. Information about all the procedures is essential for the monitoring of the user and the creation of a client card, which should have a chip containing his or her registration number, name of family contact, the unit where he or she receives treatment, the doctor and nurse responsible for care, a summary of important events and access to his or her electronic record.

This model is based on patient monitoring at all levels, verifying the effectiveness of the actions to allow effective decision making and follow-up care. As a way of organizing access to the different levels of the model, basic epidemiological screening is carried out, with a small number of questions that allow the identification of operational characteristics to prioritize care and ensure the efficient use of resources through the application of a brief risk identification (RI) tool. Technical decision-making about client referral must take place through agreement on participation in the proposed health care proposal and based on the assessment of risk of disability. In this way, RI "organizes the queue", setting priorities based on necessity and not on the perverse search for a position at the front of the treatment line. It is important that risk identification is applied to all users when they enter the model. It can be self-administered and carried out prior to reception (level 1), allowing the user to be met with prior information.

There are several validated instruments that meet all the scientific quality requirements. For the entry point at level 1, we suggest using the

Prisma-7 questionnaire. Developed in Canada, this is intended to track the risk of functional loss of the elderly. It consists of seven items, and its benefits include ease of application and response (yes/no type answers), greater objectivity, low risk of interviewer bias, reduced possibility of errors and easy analysis of results¹⁸.

In addition to the identification of risk performed at the initial stage of the process, other epidemiological instruments will be used annually from the subsequent stage onwards, or in other words, level 2. This information will be part of the patient's medical record and will be maintained until the end of the care process. The doctor and his or her care support manager, in addition to the geriatric multiprofessional team, will make more detailed evaluations to propose an intervention plan.

We propose that ratification of the signing of the health plan be carried out during the reception phase, as a way to ensure that all clarifications are provided and there is no doubt on the part of the client, thus enabling a transparent relationship from the outset. The beginning of this new relationship should be based on technical aspects of care, in addition to the administrative and financial issues inherent in the treatment contract - nothing should be omitted.

A qualified membership interview is a moment of great importance in subscribing to a health plan, since, in addition to creating a relationship of trust between the parties, it avoids the focus being exclusively concentrated on the contractual relationship. It is a unique opportunity for patient evaluation and for insertion into the care network. Completion of the health document (health declaration), where all possible preexisting diseases or injuries (PDI) are reported and temporary partial coverage (TPC) is established, is an integral part of the contract. Its completion is necessary for the understanding of the contract to be signed, to define grace periods, procedures covered in cases of urgency and emergency and coverage offered in cases of PDI. Failure to complete this may represent fraud, subject to suspension of coverage or the unilateral termination of the contract.

The user must always fill out the health declaration through a qualified interview guided by a health professional belonging to the provider,

without any burden or onus. Instead, however, this initial interview, which is of great importance to client fidelity in the proposed care model, is carried out by the broker who sells the health plan, who often does not inform the future user that his or her interest is to sell the product.

This relationship with the user needs to change. It must be transparent, establishing a pact based on truth. The actions performed must be recorded in the information system, which must be opened at reception and followed until the end of the patient's life¹⁹.

The hierarchy of the care model provides knowledge of its users, their profile and their needs, in order to better organize the delivery of services. One thing is certain: without the organization of the care of the elderly and without the elaboration of a care plan, population aging and the greater prevalence of diseases will cease to be opportunities, and will become obstacles for the sustainability of the Brazilian supplementary health system.

It is important to emphasize that the proposal presented herein is not only intended to discuss mechanisms for reducing health costs. While this is an important factor, like so many others it drives us towards a greater goal, in other words the integral care of the elderly. The model presented has a commitment and goal to improve the quality and coordination of the care provided from the entry point to the system and throughout the continuum of care, avoiding redundant examinations and prescriptions, interruptions in the trajectory of the user and iatrogeny generated by the disarticulation of health interventions.

The hospital and the emergency room will always be important settings for the provision of health care, but it is necessary to redefine and recreate the role they play in the health care network today. These units of care should be reserved primarily for moments of acute chronic illness²⁰.

Detailing the graphic model

The initial connection should be based on trust and transparency, so that the user can choose whether or

not to participate in the model. Their membership may imply bonuses and rewards related to the use of the services, such as incentives granted by the health plan and incentivized by the Agência Nacional de Saúde Suplementar (National Agency of Supplementary Health) (ANS).

896

Figure 2 was included in the book “Idosos na Saúde Suplementar: uma urgência para a saúde da sociedade e para a sustentabilidade do setor” (“The Elderly in Supplementary Health: an urgent need for the health of society and the sustainability of the sector”) of the Projeto Idoso Bem Cuidado (Well Cared For Elderly Person Project) of the ANS. Both Figure 2 and Figure 1 follow the logic of care, integrity, and the search for the required changes. It is necessary to innovate in care, in the form of remuneration, and in the evaluation of the quality offered. It is worth stressing the emphasis placed on the model and remuneration, as can be seen in the two overlapping platforms: one related to the care model and the other related to the remuneration model.

A triad for success! 1. The doctor and nurse are responsible for a portfolio of clients. 2. The user will receive a financial stimulus (reward) to adhere to the care model, which is based on monitoring and fidelity to the health team. 3. The remuneration

of the physician and the health team will be established through the success of the care. Better performance, better values. We acknowledge that health professionals are poorly paid.

Figure 2 shows, with similar significance, the quality of care offered by the attending physician, his or her client portfolio and his or her variable remuneration. Emphasis is also placed in the center of the chart on the client portfolio, functional assessments, risk tracing, the care support manager, and an efficient information system that records all client events. It is also important to emphasize the importance of the various care settings, such as the outpatient clinic, the hospital, home care, rehabilitation, the multidisciplinary team, the cohabitation center and palliative care. All are part of the network of care and are integrated through the information system and the attending physician, who is the clinical reference throughout the course of the model. It is clear that the hospital is only one setting. It is equal to the others, but surpassed by the importance of the preventive actions, which are in the center of the model. The logic is based on low-intensity settings and integral care, the multidisciplinary team and the doctor responsible for the patient.

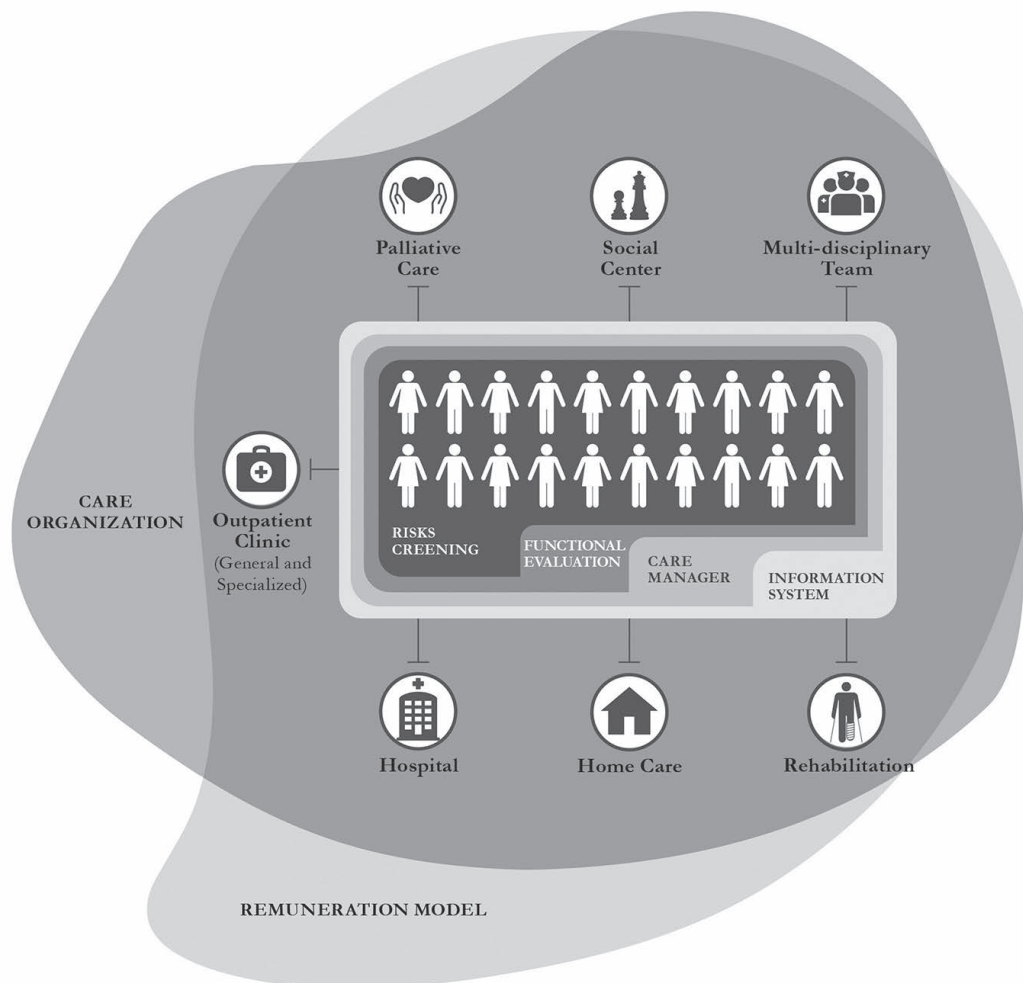


Figure 2. Well Cared for Elderly Person Project. Rio de Janeiro, RJ, 2016.

Figure 1 shows a graphic summary of the model developed by the Universidade Aberta da Terceira Idade (the University of the Third Age) (UnATI/UERJ). There are a number of key elements in the center of the diagram. It is important to include the elderly person and his or her family and highlight the care support manager and the "GerontoLine", or in other words, structures that reinforce the centrality of the client and his or her family and the ease of communication between the health professionals and the client. The model is structured in five segments, with different colors for groups 1 to 3 (lower intensity levels of care) and for groups 4 and 5 (higher intensity care). A detailed description of the five groups allows a better understanding of the philosophy based on functionality, not disease.

In this first diagram, in level 2, there is the Integrated Care Center, a unit that is characterized as the central care point of the network. It includes support systems for autonomous and independent living, with meals, family support services, the "GerontoLine", a social and coexistence center (a place where facilities for the elderly can be acquired – different types of equipment, the purchase of tourism packages, tickets and transportation for leisure activities, such as theaters and visits to museums, or in other words, everything that makes life easier for the elderly and their families), as well as rehabilitation services and support for care and self-care. It is the heart of the model, where the articulations to the other units will take place, based on evaluations. The actions carried out in the

Integrated Care Center aim to facilitate an active life for autonomous and independent elderly persons, as well as offering support facilities to assist families with dependent elderly relatives. In addition, there are other support systems to support self-care, including supervision for the administering of medication and appointment scheduling²¹.

The elderly person who is at low and moderate risk will receive care on an outpatient basis. Depending on the evaluation performed, it will be possible to decide if the necessary intervention is at a clinical or geriatric outpatient level. Clinical outpatient care located at level 2 will treat elderly persons with a pathology requiring low-intensity intervention. Level 3 is for elderly persons with multiple pathologies who need more robust geriatric support.

The third level (specialized or geriatric outpatient clinic) is structured to serve elderly people with geriatric syndrome who are frail or in the process of becoming frail, who need specialized, more detailed and more complex care. Care should be provided by geriatric physicians and a multidisciplinary health team.

At the geriatric level, care is carried out by a multiprofessional team, aimed at the maintenance and rehabilitation of functionality. It is a geriatric outpatient clinic, aimed at the frailest and most at-risk elderly who require this type of intervention. These actions aim to interrupt/reduce the evolution of frailty, in parallel with a reduction in costs. Home care (consultation and procedure) also belongs this care level.

As already mentioned, it is essential to understand how chronic diseases prevent the elderly from exercising their routine activities autonomously and independently. It is at level 3 that multidimensional geriatric assessment is applied, an important tool to determine a suitable diagnosis, prognosis and clinical judgment for effective care planning. Medical practice shows that the decline in the functional capacity of the elderly makes them dependent on a more complex level of care. It can be caused by the evolution of the underlying pathology itself, by its maladministration and sequelae, or by the inadequate care received - be it familial, social or institutional.

Home care is a care modality that is substitutive or complementary for modalities that already exist, characterized by a set of actions to promote health, the prevention/treatment of diseases and home-based rehabilitation, with a guarantee of continuity and integration with care networks. Home care can be made available in three different categories:

- a) home care level 1: suitable for elderly patients who live alone and have difficulty walking. In this case, if the service is not home-based, the elderly person is left without care and his/her condition tends only to worsen. This level 1 modality is similar to an outpatient visit;
- b) home care level 2: uses relatively simple technology and is recommended when the patient needs a procedure that can be performed at home, such as rehabilitation after fractures, wounds and other types of convalescence after hospitalization;
- c) homecare level 3: uses a structure similar to that of the hospital and is effective for elderly persons, who remain in their homes and bedrooms, without the risk of hospital infection and in an environment to which they are accustomed..

The fourth and fifth levels of the model should be used sparingly, at specific moments and always accompanied by the project team. We divided the "highest-intensity" care settings (brown on the chart) into two groups: short and long duration²².

The third and fourth level of home care is where the most complex homecare is found, based on the theory that using hospital facilities and spaces for ultra-specialized treatments runs the risk of serious loss, whether economic or from a care perspective. The technological advancement of recent decades has resulted in the miniaturization and automation of high-tech equipment, such as mechanical respirators, infusion pumps, dialysis machines and drug delivery equipment, making them more common, simpler to use and cheaper. We can therefore transfer part of the hospital equipment into the patient's home.

Surgical procedures requiring several days of hospitalization have been reduced by half. Several procedures that previously required hospitalization

are performed in doctor's surgeries/outpatient clinics, resulting in more comfort, a reduced chance of hospital infection, as well as lower costs. These factors lead to reduced hospital use, with the consequent expansion of the procedures performed in one's own home (home-care).

We will always need good hospitals, and not all patients and households are suited to home treatment. It is not our aim, therefore, to suggest a nihilistic approach. What is unreasonable is to turn hospitals into the entry point to the health system, when more contemporary medicine shows that this care setting, besides being more expensive, should be restricted to specific indications. Home care is not a fad, just a more contemporary mode of caring. In fact, the "invention" of the modern hospital is something recent. Until very recently, care was performed in the home²³.

Similar to previous levels, level 4 also works with preventive logic and aims to reduce the progression and complications of an already symptomatic disease. As such, it is an important part of therapy and rehabilitation. We know the importance of the hospital and do not wish to underestimate its ability to play a part in the patient recovery process, but this setting must be reserved for very specific and defined cases and for the shortest period possible. After remission of the acute phase, home care may be the best place to continue treatment. We would reserve hospices or palliative care for the terminal phase and for a short period and specific cases. The same applies to other instances of Level 4 care, which are characterized by short-term monitoring and referral to a more suitable area as quickly as possible. In level 4, the length of hospitalization should be short, whether in the hospice or in the Palliative Care Hospitalization Unit, and should be used only in the terminal phase to alleviate all possible forms of suffering.

A great contradiction in care logic is observed in level 5. Although recognized in the health field, long-term care settings are not covered by the private sector. In the public sector, meanwhile, the management of these settings is transferred to philanthropic or religious institutions or to the social

segment of government. Unfortunately, long-term care facilities are seen as deposits for sick elderly people, particularly asylums, places that, for the most part, function as a repository of social problems, neglect, and very little health care.

This should not be the case. The fifth level contains the rehabilitation unit for cases requiring long-term care. Assisted residences are potential alternatives to maintaining the elderly under family protection, in a non-institutionalized location, preserving affective ties and more intense affective support. Long-term care facilities for the elderly, although not a priority option, may be the only solutions for elderly persons without family members or with financial difficulties. This structure ends up being the only option for the care of a patient with these characteristics. In short, level 5 care requires a more inclusive policy and more effective participation of the public and private sectors to avoid abandonment in the last stage of life. As these are long-term actions, the fundamental discussion concerns the structuring of a financing mechanism, otherwise little progress will be achieved.

For the success of this model, therefore, it is necessary that clients are guided towards participation in the proposed programs and actions, instead of the current logic of using a health plan only when undergoing tests or entering a hospital with disease already in an advanced stage. The model includes all care settings, excludes absolutely nothing in relation to the care required - in fact, includes new units not usually offered to the clients of many healthcare providers - and prioritizes the logic of care in "lower-intensity" settings. These offer the best possible care, with trained and qualified professionals, based on the modern scientific conceptions of treatment. In short, our proposal is to invest in health, to reduce spending on disease.

Specificities and characteristics of the model

Care models of the elderly population need to be people-centered, taking into account their characteristics and needs. Care must be managed from the moment of entry into the system to the

end of life, with all services and actions offered in a planned manner, with constant monitoring. We know that the elderly have specificities due to their age, such as chronic diseases and physical and social frailty, resulting in higher care costs. Faced with so many adverse situations, the care of the elderly must be structured in a different and special way.

Some aspects of the model are fundamental and are described in more detail below:

- a) Upon reaching level 1, at the moment of reception, the model is described to new users and they are given the opportunity to clarify any doubts. This first appointment must be carried out by a health professional, who will explain the care pathway and its various care settings, establishing a relationship of trust between the user, his or her family and the proposed model of care. This professional will give a broad exposition of the proposed actions, emphasizing, above all, the promotion of health and the prevention of diseases, in addition to describing the care pathways of the network, providing a comprehensive understanding of the model. It is necessary to detail to users in a clear and didactic way the various procedures that will be performed, a differential which we believe to be beneficial and which has the aim of improving the quality of life and health of the elderly. In the same way, the participation of the elderly person should be encouraged, as it is part of this model of health care.
- b) An organized and resolute health system should include an Electronic Health Record (EHR), which is an electronic repository of information regarding the health of users. Ideally, this repository needs to have the minimum standard of being accessible in any setting of the system and by the patients themselves. The confidentiality and privacy requirements of the personal data of the patients should be considered in the conception and implementation of the EHR, with different levels of access depending on the nature of the information provided, in accordance with federal legislation on the subject. An important differential is the proposal to record the patient's "care pathways through a comprehensive information system that not only records the

clinical evolution of the elderly person, but also their participation in individual or collective prevention actions. Likewise, the support of the care support manager and the calls made to or by what we call the "GerontoLine" allows information sharing, enabling a more complete evaluation of the individual, including the medical records of the hospital. An organized and resolute health system should include an Electronic Health Record (EHR), which is an electronic repository of information regarding the health of users. Ideally, this repository needs to have the minimum standard of being accessible in any setting of the system and by the patients themselves. The confidentiality and privacy requirements of the personal data of the patients should be considered in the conception and implementation of the EHR, with different levels of access depending on the nature of the information provided, in accordance with federal legislation on the subject. An important differential is the proposal to record the patient's "care pathways through a comprehensive information system that not only records the clinical evolution of the elderly person, but also their participation in individual or collective prevention actions. Likewise, the support of the care support manager and the calls made to or by what we call the "GerontoLine" allows information sharing, enabling a more complete evaluation of the individual, including the medical records of the hospital.

- c) A functional evaluation is the definition of stratification and the correction allocation of the patient in his or her care pathway, and allows their care behavior to be anticipated.

There are a number of evaluation tools which have been validated and translated into Portuguese that are available for risk screening and the organization of the entry point to the health system. For this first contact, we suggest using Prisma-7. We know that functional autonomy is an important predictor of the health of the elderly, but systematically evaluating the entire elderly population using long and comprehensive scales is not ideal. The two-step approach, which provides a full assessment only for at risk elderly persons, captured by a screening process, is more effective and less burdensome.

Therefore, for this first phase (of rapid screening), we must use an instrument with the following criteria:

- simple and safe;
- short application time and low cost;
- sufficiently precise to detect the risk investigated;
- validated for the population and the condition to be evaluated;
- have acceptable sensitivity and specificity;
- have a clearly defined cutoff point.

The process of the validation and cross-cultural adaptation of the Prisma-7 questionnaire for Brazil showed that the cutoff point for score 4 (four or more positive responses) is ideal. The instrument does not require special material, qualifications or training. The application time is three minutes and sociocultural and educational levels do not influence the understanding of the questions.

Prisma-7 has been used systematically at the entry point of the Canadian health system and the British Geriatrics Society and the Royal College of General Practitioners in England as a screening tool for functional loss and frailty.

After the application of this rapid screening instrument at level 1, the result obtained is input into the information system. The elderly individual will undergo further functional assessments in other care settings. In level 1 only the Prisma-7 will be used. At levels 2 and 3, the patient will be submitted to the other instruments that are part of this functional evaluation. The Katz Scale, which evaluates self-care activities in daily life, and the Lawton Scale for instrumental activities of daily living, are examples of universally adopted instruments. In our proposal, we will use some of the most significant protocols already translated and validated in Brazil.

- d) The "GerontoLine" is a differential feature; a call center that serves as a support service for the elderly

and their families. Its role is to maintain a direct relationship with users and to meet their needs.

- e) The care support manager is a health professional (usually a nurse) who accompanies the elderly person and his/her family from level 2 (Integrated Care Center) onwards. The brief functional evaluation made at the entry point provides a monitoring ground zero and serves as a parameter for monitoring the effects of the treatment plan between the different points in the network. This professional is responsible for the transition of care between services and will annually, or when necessary, reevaluate the functional capacity of the elderly person, encouraging them to participate in the process. The care support manager's role is extremely important for the proposed model and follows the same logic as the navigator, created to guide cancer patients through the care network and to follow protocols in the US healthcare system.

The navigator role is central to this proposal. According to the American Medical Association, this professional is responsible for managing the care of the user through the different levels of complexity of the health system, verifying that prescriptions and guidelines are being met.

- f) The patient's physician, the old-style family doctor, provides care in the outpatient clinic located in level 2 of the model, but accompanies the elderly in all the care settings. If the patient is admitted to the hospital, the doctor will not provide treatment in this setting, but as the person in charge and the patient's reference point, he or she will be informed of everything that happens, alongside the nurse, and will maintain contact with the hospital or homecare doctor or physicians from any other care setting. It is vital that every client retains his or her doctor, regardless of the location of the care. The relationship between physician, care support manager and patient should be close.

Although the complete model is composed of 5 levels, it is in the first 3 that the difference is made. For this reason, emphasis is placed on the

first three levels of care. Our focus, therefore, is for a more resolute and welcoming model, based on integral care and the most current and contemporary scientific knowledge. We do not deny and we do not oppose, nor do we abandon other care settings, but the "newness" of the model is neither in the hospital nor in the shelter.

Tendency for change

The desire for higher quality and more effective elderly care model is not solely a Brazilian concern. The whole world is debating the issue, recognizing the need for change and proposing improvements in their health systems.

The same thing happened among us, when we presented the work carried out at UnATI/UERJ and within the framework of the *Idoso Bem Cuidado* (Well Cared For Elderly Person) project. The diagrams that summarize these studies summarize perfectly the model we are seeking. There is no single model, but a logic that favors low-intensity care, constant monitoring, an efficient telephone service, a doctor responsible for a portfolio of clients who accompanies them through all the care settings, a nurse who works in partnership with the doctor, teamwork, the use of epidemiological tools to monitor functionality, and a quality electronic medical record. All these elements contrast with the model based around specialist doctors, the disarticulation of professionals, the priority use of the hospital, the high consumption of drugs and the excess of laboratory and image exams²⁴.

In summary, there are suggestions for models of care pathways. The important thing is for each health institution to be aware of its population, their profile and their needs, to construct the best way of organizing the delivery of its service. One thing is certain: without the organization of elderly care and the elaboration of a care plan, population aging and the increased prevalence of chronic diseases in the public or supplementary health sector in Brazil

may no longer be seen as opportunities, but become obstacles to the sustainability of the system.

CONCLUSION

The proposal of this model of integrated care for the elderly is based on the flow of actions of education, health promotion, the prevention of preventable diseases, the postponement of illnesses, early care, and rehabilitation from sickness. In other words, a care pathway for the elderly within an articulated, referenced network, with an information system designed in keeping with this logic.

Transforming the logic of health care in Brazil is both a great challenge and a necessity. And it becomes even more important when discussing the health care of people in situations of greater vulnerability, such as the elderly. This type of change and innovation needs to be built into day to day health services, the training of health professionals, the way the health system is managed and organized for care, and its funding. It is impossible to talk about reorganizing the provision of services without mentioning remuneration models, as one determines the other. We need to address this issue to move towards a higher quality of health care and to be able to adequately compensate different care settings and new ways of producing health – such as the Integrated Care Centers and transitional care settings – indispensable in a scenario with a prevalence of chronic diseases.

We believe that it is possible to grow old with health and with quality of life, provided that all the actors in the sector see themselves as responsible for the necessary changes and allow themselves to innovate through innovation in care, in forms of remuneration and in evaluating the quality of the sector²⁵.

We must always remember that innovation can often mean recovering the simplest care and values that have been lost within our health system. We have already lost a lot of time; we must now start constructing this new way of caring for the elderly. We can wait no longer.

Expert Comment**Aging: A triumph of our society; now we need to guarantee it occurs with health and quality of life!**Martha Oliveira¹

903

Commenting on this important text of Professor Renato Veras is an honor for me. His studies and proposals for a better health system for the elderly in Brazil are fundamental if this achievement of our society – greater life expectancy – is to be enjoyed in full.

The current care model in Brazil favors a low quality of services and inefficiency, remuneration by volume, and a fragmented and disjointed system.

We have an excess of some technologies while other health devices have simply have not developed in Brazil, especially in supplementary health, such as home care and palliative care.

Elderly persons, because of their greater vulnerability and greater use of the health system, are among the most affected by the current care model.

As Don Berwick wrote in Institute for Healthcare Improvement (IHI), “Every health system is perfectly designed to achieve the results it achieves”. Our health system has achieved a demographic transition (aging), an epidemiological transition (we now have a triple burden of diseases), a nutritional transition (we have moved from malnutrition to obesity), but we have not been able to make the much needed transition in our health institutions, which remain organized to treat acute, infectious diseases.

Some elements are necessary in a system if it is to change health outcomes, such as evaluation and

remuneration based on quality and an information system that can facilitate the care pathway of the patient.

In order to change this model, we need to guide these changes along the axes that are described in Professor Renato’s text: functional evaluation, a centralized care doctor, a care support manager, and a multiprofessional team.

The importance of hierarchical levels of care are also highlighted, as these organize the route of care of the elderly individual, according to their care pathway.

The entire model proposes a reorganization of care that has already been shown to be much more effective and cheaper for the health system. It means simply doing what is necessary, in the right way, focusing on the most important element of every process, which is the patient.

Another key point is the participation of the elderly person in the model, using strategies that can help to convince these individuals of the importance of preventive care, such as the rewards that can be offered by health plans.

Finally, the time has come to include the debate over healing and caring in our discussions about professional training and service organization. We need to organize ourselves to take care of people in a health system that has so far focused on curing patients. This will make a great difference at this time of population aging.

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