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The continuous assistance, referral and discharge criteria, implementation barriers

La asistencia continua, los criterios de derivación y de alta, los obstáculos de implementación

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INTRODUCTION

Cardiovascular (CV) disease is one of the greatest health problems of our century. These diseases appear in a good proportion of patients with clearly defined risk factors. Adequate control of one of them: dyslipidemias, has a considerable impact on the possibility of a major cardiovascular event occurring. For this, within health systems, both patients and physicians face a series of obstacles to achieve adequate care on an ongoing basis.

THE IMPORTANCE OF A STRICT CONTROL OF LIPID CONCENTRATIONS

For a strict control of lipid concentrations, both physicians and patients need to become aware of what is being prevented. On one hand, physician must have the clinical sensitivity to do so, overcoming daily problems in care in public and private health services. It has been observed that both physicians and patients pay little attention to attain a perfect lipid control. The causes are diverse, and within them, some are attributable to practitioners, and other to patients themselves or to the health care system. Sometimes a physician does not intensify the treatment or does not pay attention to a perfect lipid control due to ignorance or to the lack of updated knowledge, that justify the relevance of a perfect lipid control, or because the professional underestimates the problem.[1] The saturated consultation of many physicians and the lack of knowledge about what to prevent, tend to create an ambience of conformism about the patient´s health. Additionally, some physicians do not believe in the long-term positive impact of lipid control, and they pay little attention in caring, «trusting» that no major CV event will occur. On the other hand, many patients may abandon or reduce the vigilance in this matter, either due to the cost of treatment or because of the misconception that establishes that medications must be taken only when there are symptoms. On many occasions, after the physician prescribes a treatment, the patient decides not to take it, or to halve the dose, breaking up treatment compliance. When for some reason the treatment is not intensified or monitored, the phenomenon has been called *clinical inertia*.[1] The causes for which clinical inertia occurs are summarized in *Figure 1*. Several studies have shown that close monitoring of patients provides favorable long-term results. An example is the MIRVAS study, which encompassed 247 patients that were randomized into two groups, one with programmed visits at 2, 5, 12, 24 and 36 months. These visits were aimed to monitor the strict control of risk factors, including lipid serum concentrations and to advise about a healthy lifestyle. In the other group of 126 patients, these ones have a single appointment a year, delegating in themselves the responsibility of their own treatment. This situation occurs usually in many health systems. The intervention

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group had a higher survival rate compared to the other group (3-year survival rate 97.4 vs 85.5%, p = 0.003). The intervention group results demonstrate that the comprehensive and intensive control of CV risk factors reduces the absolute risk of CV morbidity by 28.5% and total mortality by 11.9%.[2] This simple study shows the importance of forming a group of health professionals who have the necessary preparation to detect severe pathological scenarios in dyslipidemia, with defined study protocols and precise therapeutic surveillance. Hence the need to have a continuous patients care system, going from hospital attention of severe clinical conditions to primary care.[3]

BARRIERS IN THE IMPLEMENTATION OF A CONTINUOUS CARE SYSTEM

There are certain barriers that prevent patients from receiving continuous and effective treatment, not only at the time of diagnosis but also throughout surveillance for the rest of their life, which in certain conditions, includes their family study. The following factors that affect continuity of care are described:

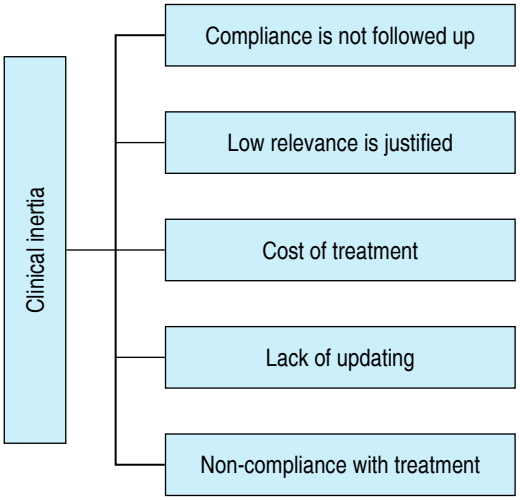

Figure 1: Causes of clinical inertia in treatment.

Table 1: Barriers to implementing a continuous assistance system.

Fragmented health care system
Lack of communication on therapeutic objectives between the two systems
Different therapeutic criteria between the two systems
Difficulty in the use of high-cost drugs

1. **A fragmented health system:** on many occasions, hospital care, where specialists are present to attend acute complications of CV diseases, do not have communication with primary care physicians. The hospital specialists can adopt two behaviors. On one hand, when faced with an interesting case, they may stay close to the patient to carry out studies considered pertinent They establish a treatment, and perhaps publish the case. Finally, the patient is discharged and sent to primary care, with indications to continue the treatment, but without a monitoring protocol, counseling, or contra-referral to evaluate progress or adherence to treatment. In another scenario, the specialists treat the CV event, discharges the patient, and send him to primary care, giving instructions be studied from other clinical entities that may affect the CV risk. On the other hand, the primary care physician may not establish close surveillance for the case, either due to ignoring the objectives pursued, or due to saturation of the care system, worsening the risk that the patient may have in the mid-term future.[4] Likewise, on several occasions and especially in family dyslipidemias, the study does not cover other members of the family, which also affect prognosis of such patients. In this situation, a link between the two care systems is a priority, to define criteria for referral, evaluations and monitoring of patients.
2. **Therapeutic goals are not shared:** often the therapeutic goal in both care systems is not shared due to lack of effective communication. On one hand, hospital care acts independently without considering the primary care system that will give continuity and surveillance to the case. On the other hand, primary care physicians have several limitations to control the case and does not share therapeutic objectives or diagnostic and surveillance strategies with hospital care. Nor does it share the disrupt of other diseases that may generate a transcendent impact in

Table 2: Objectives of a Cardiovascular Risk Unit.
Unified and multidisciplinary consultation
Decisions in clinical sessions
Constant and updated communication on clinical practice guidelines with the primary care system
Virtual consultations and tutorials with PC in the management of patients with elevated CVR
Serves as a link between the two systems
Promotes reasoned prescribing of high-cost medicines
Criteria for referral to hospital care and discharge to primary care

PC = primary care, CVR = cardiovascular risk.

Table 3: Dyslipidemias warranting referral to a Cardiovascular Risk Unit with High Specialty Hospital Counseling.

Referral criteria	
Dyslipidemia	Values (mg/dL)
Hypercholesterolemia	CT > 300 cLDL > 200 Lp(a) > 117
Hypertriglyceridemia	TG on an empty stomach > 1,000 TG > 500 mg/dL with Tx TG and CT > 350
cHDL	cHDL < 20 cHDL > 100

the clinical and lipid evolution of the patient.

3. **The commons criteria of treatment are lost:** the need to reduce and control CV risk factors, requires adequate diagnosis and treatment for different conditions in dyslipidemias. Treatment criteria become complicated when involves the use of high-cost drugs. The justification for its use, the risk of not being able to sustain the treatment or its abandonment, make the situation more difficult. In these cases, the treatment tends to be «replaced» by others with less efficacy in each case, losing the therapeutic objective and the goal in controlling the CV risk factor. *Table 1* lists the factors or barriers that prevent continued care in patients with dyslipidemia.

THE CONTINUOUS ASSISTANCE

To establish continuity in patient care, a clear definition of the functions of both systems must be ensured: hospital and primary care. This implies that the diagnostic and treatment strategies are shared by the two care levels in such a way that both pursue the same study and management objectives. A confronted care system, poorly communicated and without shared objectives, advances or evolutions; leaves patients in a therapeutic vacuum that puts them in risk. For this, it would be useful to set up a Cardiovascular Risk Unit to serve as a link between Primary Care and specialized Hospital Care. In some countries, these units are made up of cardiologists, endocrinologists, and specialists in internal medicine, conforming a multidisciplinary health group that study, modify, adjust and establish a link with both systems of care. The proposal of such units has the following advantages:

1. Control and monitor the evolution of patients, establishing frequent appointments, whose objective is to achieve therapeutic goals. The attainment of that these goals have a beneficial impact on the patient's prognosis, then awakening and reinforcing the interest of patients to achieve these goals. Above all, the physician-patient bond is strengthened.
2. Serving as a link between primary and hospital care, in such way that both systems are informed about the evolution, prognosis, and the reach of therapeutic

Table 4: Criteria for discharge from a Cardiovascular Risk Unit to Primary Care.

Hypercholesterolemia	Secondary hypercholesterolemia Polygenic hypercholesterolemia
Hipertriglyceridemia	Mixed hyperlipidemias after strict cardiovascular evaluation Secondary hypertriglyceridemias
cHDL	After controlled cardiovascular evaluation
Primary prevention	Controlled non-genetic forms
Secondary prevention	Controlled non-genetic forms with stable cardiovascular evaluation

goals. In that form, both systems are aware of the patient.

3. Controlling the indication of high-cost drugs, becomes reasonable the economic burden on the system. Their prescription is done following precise established guides and goals. The justification of the use of these costly treatments and their temporality should be promoted within the system in order to get physicianto prescribe them reasonably.
4. Establishing criteria for specialized hospital admission and control criteria in primary care. This relieves pressure on saturated healthcare systems.

Table 2 establishes the objectives of a Cardiovascular Risk Unit.

CRITERIA FOR REFERRAL AND DISCHARGE OF A CARDIOVASCULAR RISK UNIT

Although the criteria can be defined in the dynamics of each particular health system, it is important to mention that those severe and complex dyslipidemias commonly associated to adverse outcomes, merit closer monitoring and a well-defined study protocol. In general, in familial dyslipidemias, characterized by having very high total cholesterol, LDL or triglyceride concentrations, as well as patients with a family history of severe dyslipidemias or cardiovascular death at early ages, would be candidates for study and referral to these units. In these clinical presentations, the possibility of genetic and family studies, or the use of high-cost drugs, justify an adequate study and a precise therapeutic definition.

Table 3 shows the dyslipidemias that would warrant referral to a cardiovascular risk unit with highly specialized hospital counseling.[5]

The criteria for discharge from a CV risk unit are patients with secondary dyslipidemias and in those whose clinical-pathological condition allows periodic surveillance with an acceptable risk of control in primary care. It should be noted that the proposal includes the notion that the patients is not finally discharged, but sent to primary care, to continue the accompaniment and surveillance their clinical conditions.

Table 4 shows the criteria for discharge from a Cardiovascular Risk Unit in the lipid scenario.

CONCLUSIONS

Strategies must be focused on improving the prognosis and survival of the patient. Medical and health management strategies must be designed for this purpose. Updating and overcoming administrative barriers are part of main objectives in patient care. The creation of CV risk units is one of the proposals to achieve these goals and improve the patient's life prognosis.

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