

Timely referral of predialysis patients in primary health care establishments, northern Region, Peru

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Abstract

The present study collected the opinion of nephrologists from the health centers of the Lambayeque Healthcare Network regarding the referrals sent to the hemodialysis services of the Almanzor Aguinaga Asenjo National Hospital to have sufficient elements and develop a management strategy and the timely referral of predialysis patients. It presents an analytical descriptive design and seeks to characterize the problematic situation experienced by the care centers of the healthcare network. The population consisted of 20 specialist doctors who answered a questionnaire with multiple-choice questions, open questions, and other dichotomous ones, obtaining that 70% of the doctors who refer patients lack adequate training regarding the Management of the technical rules; 50% of the doctors of the reference centers express their dissatisfaction with the system; however, the quality is affected because a significant percentage of general practitioners affirm that they do make a referral correctly, which is why there is considerable inconsistency in the perception of the service; Regarding the continuity for the follow-up of patients on predialysis, 45% of specialist doctors affirm that patients do not receive an optimal predialysis evaluation before being referred to the referral center. Conclusions: The Management of referrals for predialysis patients to the referral center is not adequate, and the proposal of a timely referral system to these specialized centers is necessary.

Keywords: Management strategy; Reference; Patients and predialysis, nephrologists, health centers, Healthcare.

INTRODUCTION

Chronic Kidney Disease (CKD) is the progressive loss of kidney function, affects 8% to 16% of the world population, and both the incidence and mortality continue to increase. (1) As there is no research on the prevalence of CKD in Peru, in 2016, Loza made a projection based on data from the National Health and Nutrition Examination Survey, NHANES III, USA, with this reporting a CKD prevalence of 13, 2% and a prevalence of CKD on dialysis of 0.1%. In Peru, the MINSA (Ministry of Health) in 2013 indicates it as the eleventh cause of death with 3.5% of women and 3.4% men, in addition, 3 million Peruvians have a certain degree of CKD, 30 thousand in terminal stage and require dialysis, but only 10,000 receive this service according to the Peruvian society of nephrology. (2)

In Lima and Tumbes, Peru, 2011, a prevalence of 20.7% and 12.9%, respectively, were reported. This report shows the increase in mortality from CKD and, as a common cause, late referral to an accredited hemodialysis center;

it also points out as a relevant fact the degree of complication of renal function associated with patients despite having therapeutic strategies for its handling. (3) CKD is defined as a GFR (glomerular filtration rate) of less than 60 ml/min / 1.73 m² for more than three months. It is classified into five progressive stages (ERC-1-ERC-5), according to the 2002 KDIGO (Kidney Disease: Improving Global Outcomes) guidelines by the National Kidney Foundation. (4) Therefore, a more significant impact would be expected as the population's life expectancy increases; due to the prevalence of cardiometabolic risk factors (hyperglycemia, HTN, obesity, and dyslipidemia), expecting a higher risk of CKD. (5)

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In Peru, the Social Health Insurance (EsSalud) is no stranger to this reality, considering that it serves the most significant number of dialysis patients in the population. A national survey of EsSalud insured (ENSSA-2015) found that 1.7% of insured persons over 60 years of age reported having chronic kidney disease in 2015. (6) Likewise, studies carried out with data from the national death registry of Peru showed that the incidence of deaths from CKD increased between 2003 and 2015, with Puno being the most affected region (4.1% of deaths from CKD). (7)

Characterization and Management of the patient referral process in EsSalud

The current situation of medical services and national health indicators show a growing problem, especially in highly complex procedures, the latter seeking to rescue the patient from a terminal condition. The present research aims to obtain relevant information from the patient in a state of pre-renal dialysis; identified in first level care facilities and then referred using the referral system to a more complex center; however, the trend is increasing in the incidence and mortality of CKD, showing the limitations of the current processes. (8) Given this, early evaluation, timely and appropriate Management of CKD cases is proposed, which could reduce morbidity and mortality, and complications of this condition, preventing this disease from impacting patients' quality of life. (9)

The study is aimed at all insured and right holders who suffer from Chronic Kidney Disease, duly diagnosed and who are transferred to the Essalud National Hospitals, which offer treatments based on their screening, prioritizing people with other risk factors for CKD among them History of Acute Renal Insufficiency (ARF), cardiovascular diseases, multisystemic diseases, work scenarios with potential kidney damage, for example, exposure to pesticides and dehydration. (10)

In the same way, the "Almanzor Aguinaga Asenjo" Hospital of EsSalud Centro Nacional de Salud Renal (from now on: HNAAA for its acronym in Spanish) provides, directly or through a contracted offer, Hemodialysis therapy and instructs the family on how to perform Peritoneal Dialysis therapy. In both cases, there is the care of a multidisciplinary team to the patient to carry out the process of replacing the kidney of the patient, who is with chronic kidney disease.

Health care system

The system of referrals and counter-referrals of patients in the two health macro systems (MINSA and EsSalud) is going through a structural and functional crisis due to the increase in demand from patient users who need specialized care in hospitals different levels of complexity. Tobar defines health care (or assistance) as the set of processes through which benefits and health care provision is specified to an individual, a family group, a community, and/or a population. Meanwhile, health care contributes to restoring people's health. (11)

The research aims to make a view from the accessibility

between the first level health establishment and specialized dialysis centers where referral and counter-referral are essential, to improve the preparation of the original document and take into account important aspects for health teams receivers.

Finally, the diagnosis, control, and reference criteria according to the stages of CKD in adults may vary according to its progression and risk factors in which immediate complications occur; this is how adequate Management before therapy Dialysis can decrease mortality in CKD patients. (12) However, there is no consensus on these criteria, and they tend to differ according to the criteria or clinical guidelines used.

Diagnosis of the Current status of the Management of the EsSalud Patient Referral process in the HNAAA

The formal object of this research is the renal predialysis condition; For the study, the concept of Medical Care is used, which includes "all the services that are provided directly to people for health care, encompassing in this sense the traditional activities of promotion, protection, diagnosis, treatment, recovery, and rehabilitation. (13)

The research delves into the referral and counter-referral system between the first and second levels of care viewed from the point of view of accessibility, considering it as an essential process that occurs within the health facility once entered into it is achieved. This limits our analysis to the point that goes from the beginning of care and its continuity, encompassing a part of the intermediate domain of accessibility. This conception of need as an epidemiological concept includes, in addition to spontaneous demand, the potential demand for perceived morbidity, not perceived morbidity, and even vulnerability due to the presence of risk factors in a healthy population.

The analysis was performed from the first care until the patient agreed to its continuity, at the highest reference level. Thus, using an actual diagnosis made to the doctors of the healthcare centers, as well as the application of instruments for data collection, manifestations that are summarized below are observed:

- Delay in referring the patient to the nephrology service.
- Lack of clinical guidelines in the Management of nephrological patients in polyclinics.
- General practitioners with training limitations for the Management of nephrological patients.
- Excessive and inefficient processes in admission, laboratory, pharmacy care, psychology, social worker, nutrition, and nursing in polyclinics.

The aforementioned occurs in inadequate infrastructure, lack of equipment, excessive transportation time, insufficient number of ambulances, which generates unscheduled expenses by patients, and the increase in medical attention and the centralization of medical services. Hospitals cause delays to obtain the turn. Finally, part of the problem is the

timely reception of the patient in a health facility.

The problematic manifestations mentioned constitute the basis for the research question: How does a management strategy improve timely referral of predialysis patients from the healthcare center to the HNAAA?

As causes of the problem, the absence of clinical guidelines in the Management of nephrological patients in polyclinics with clear management procedures, insufficient training for medical personnel in the Management of these patients, inefficient processes in admission, laboratory, and care have been identified. Pharmacy, psychology, social worker, nutrition, and nursing in polyclinics generate an increase in referral times by not having the requirements requested for this purpose. No previous studies at the national level have determined with any precision the prevalence of CKD in its different evolutionary stages, mainly stage 5, which require priority attention.

The objective of this study was to develop a management strategy for the timely referral of predialysis patients from the healthcare center to the HNAAA, based on the fundamental analysis of the patient's situation in their first-level care facility.

It was hypothesized that a management strategy for timely referral in predialysis from the healthcare center to the HNAAA will improve the patient's survival.

METHODOLOGY

Among the methods used in the investigation, the Historical-

logical, useful in the characterization of the historical events of the reference process, are recognized; Analysis-synthesis in the study of the reference process and its Management, using the research logic; the hypothetical-deductive, when establishing the hypothesis that is defended, and in the determination of the variables and dimensions; Abstraction-concretion, to consider the concrete theoretical elements in the patients.

The survey was used as an instrument to the participants, and an interview was applied to doctors to diagnose the object's initial state and field of research.

Ethical considerations

The research assumed two fundamental ethical principles: 1. Informed Consent, 2. Confidentiality and Anonymity. (14) Likewise, taking into account the principles of the Belmont Report, which includes three principles that have been put into practice in education research: Principle of Respect for Human Dignity, Principle of Justice, and the Principle of Beneficence. (15)

RESULTS

The nephrology service at the HNAAA receives patients referred from peripheral polyclinics. There are generally problems with formats, laboratory tests, image evaluations, and specific diagnoses; this generates dissatisfaction in the patient and the service provider. The reason why a survey was applied to specialist doctors, which yielded the results that are shared below:

Table 1. Percentages of satisfaction with the medical referral process

N°	ÍTEMS	SCALE*										TOTAL
		1	%	2	%	3	%	4	%	5	%	
1	Percentage of satisfaction with the patient referral forms issued by your institution	0	0	10	50	5	25	5	25	0	0	20
2	Percentage of agreement that there is coordination with HNAAA medical specialists	4	20	6	30	6	30	1	5	3	15	20
3	Percentage of CKD patients receive optimal pre-dialysis follow-up before being referred to HNAAA	4	20	6	30	4	20	5	25	1	5	20
4	Patients against referrals are not adequately controlled in their establishment	0	0	13	65	0	0	2	10	5	25	20

* Note: 1 = Totally Satisfied; 2 = Satisfied; 3 = Neither satisfied nor dissatisfied; 4 = Dissatisfied; 5 = Totally dissatisfied.

Item 1 (Table 1) shows that 50.0% of the surveyed physicians indicate that they are satisfied with the reference formats. In comparison, 25% are neither satisfied nor dissatisfied, and finally, 25% are dissatisfied with the reference formats. This shows that they are probably impractical for everyday use by physicians.

Item 2 (Table 1) shows that 30.0% of the surveyed physicians state that they are satisfied with the coordination

with the HNAAA specialist physicians, as well as 15.0% indicate that they are very dissatisfied with the coordination with the physicians. HNAAA specialists, while 5.0% indicate that they disagree.

Item 3 (Table 1) shows that 30.0% of the physicians surveyed indicate that they agree that CKD patients receive optimal predialysis follow-up before being referred to HNAAA. In comparison, 25% of the surveyed physicians are dissatisfied.

Item 4 (Table 1) shows that 65.0% of the surveyed physicians agree that counter-referral patients are not adequately controlled in their establishments, as well as 25.0% of the surveyed physicians disagree that the patients against referrals are not sufficiently held in their establishments;. In comparison, 10% of the surveyed doctors disagree. Huay23 also mentions it in his research: he recommends improving the care processes for patients with this pathology to have a timely screening, diagnosis, and treatment.

Regarding the (Percentage of knowledge about the technical standard for the Management of patients with chronic kidney disease), it is found that 10.0% (4/20) of surveyed doctors declare that they do fully know the technique, 70% (14 / 20) says that he does know about it, but needs more training on it;. In comparison, 25% (2/20) declare that they do not see the technique at all.

About (Compliance with the care process in chronic kidney patients), 35.0% (7/20) of the surveyed physicians indicate that the medical referral complies with the General Medical Consultation care process; 35.0% (7/20) indicate that they comply with the Nursing Care process; while 20% (2/20) indicate that they comply with the Nutritional Care, Psychology and Social Worker process. It is striking that doctors suggest that only 5 (1/20) of the patients referred with Laboratory Tests done; similar happens with Imaging Studies.

Regarding the Percentage of physicians who adequately record the signs and symptoms of the patient in the Clinical History (HC), it is found that 50.0% (10/20) of the physicians surveyed do carry out a correct record of the signs and symptoms of the patient in the HC. It should be noted that patients with Chronic Kidney Disease require a longer time to be correctly evaluated, time that is not available, especially in the first level of care.

Concerning the Percentage of physicians who correctly register the reference diagnoses; Percentage of doctors who write the ICD code in each pathology; Percentage of physicians who report the reason for the referral; Percentage of doctors sign and stamp correctly; Percentage of doctors who register the identification of the patient to refer, no element that is striking is found, on the contrary, the ethical profile of the doctor is reaffirmed, which, in addition, finds support in the current electronic medical records.

DISCUSSION

The preparation of referrals and Management of patients on predialysis towards HNAAA was not adequate; because, according to the study, 50% of primary care physicians lack sufficient training regarding the use of the technical standard for the Management of this type of patients, which is why the relationship with the descriptive-cross-sectional study is mentioned in 2016 in a hospital in Lima, he used the Servqual survey. He reported a global index of external user

dissatisfaction of 50.3%. Regarding referrals to different services, these dimensions also included: safety (57.6%), responsiveness (56.3%), and empathy (53.3%), with the highest values of perceived dissatisfaction. (16)

Regarding the quality of the referrals, constant dissatisfaction is also evident; however, the quality is affected because a significant percentage of them stated that they did make the referrals correctly, so there is considerable inconsistency in the perception of the service. They are comparing this way with the results of the Aburto study in Mexico, whose results showed illegibility in 20.3% of the formats by hand. (17) On the other hand, investigations, carried out in various departments of Peru during 2017 and using the Servqual methodology, have described global satisfaction rates for external users of 68.9% (Loreto), 51.4% (La Libertad), and 39.2% (Ica); (16) being shown that there are inconsistencies in the perception of the service.

Regarding the accessibility of referrals, 35% of kidney patients were initially cared for by the nursing staff; 30% by other health professionals (nutritionist, psychologist, social worker, and laboratory personnel); finally, access to a specialist doctor is often achieved late, complicating the health situation of the kidney patient. Other studies in hospitals in the Peruvian capital, using the Servqual survey, found their findings centered with the highest value of dissatisfaction with the capacity to respond to the request for the counter-referral. Also, the complaint focuses on the average delivery time of the appointment that was 7.16 days, (18) a situation that extraordinarily affects the patient's survival in a state of seriousness.

On the other hand, as a primary care center in Puno, patients' opinion about the referral and counter-referral service is mostly favorable, with 80% reporting having received perfect treatment at the referral office. (19)

During 2016, using the same methodology as the Servqual survey, the emergency service of a hospital in Honduras reported slightly acceptable user satisfaction figures that were around 65%; Likewise, when the service quality index (-20.6) was determined, it was strictly interpreted as a slight dissatisfaction with the service provided. 114 external users were surveyed, and a global user dissatisfaction of 56.2% was obtained. Similar figures were found in the dimensions of reliability (59.6%), responsiveness (53.3%), security (49.1%), empathy (58.8%), and tangible aspects (58.8%). (20) The disinterest of the doctor was related as the leading cause of dissatisfaction with safety ($p = 0.027$), the speed and use of technicalities with empathy ($p = 0.002$), and the scarcity of water with tangible aspects ($p = 0.014$). The research on the satisfaction and improvement process of the referral system and counter-referral of the external consultation user in the Morrope district 2020 results show a dissatisfaction of 55.3% of the patients with the referral system; their most significant dissatisfaction was with the empathy of the staff. (18) This means taking into account that the doctor's empathy (understanding the capacity to feel

otherness) is decisive to achieve patient satisfaction.

Regarding the opportunity to coordinate with specialist doctors, 50% of the doctors in the periphery confirmed no coordination with the specialists, although the former state that they record the reason for the referral to the hospital. In Peru, there is "little functionality of the Reference and Counter-referral System that is accompanied by a lack of follow-up in its application, ignorance of its operation and a health policy that has allowed free access to all levels of care". (21) They have created an unfavorable environment for their development. In the department of Lambayeque, this reality is not escaped due to the lack of training of the professionals involved and the lack of a consensual reference flow and reference criteria agreements. The admission of patients to hemodialysis who have had previous controls in the predialysis stages is of great importance because it is associated with a lower morbidity and mortality rate and cost reduction. The intervention provided in the predialysis phase improves treatment adherence, allowing the patient's active participation in choosing the type of dialysis treatment. Another study carried out at the Hospital Alberto Sabogal Sologuren - Lima, 2015; there are complaints among the patients of the Nephrology service for the following, they were controlled only by a nephrologist (18 patients), 72.2% (13) were admitted by emergency, 22.2% by the office, and 5.6% for emergency; Of those who did not have any predialysis control (11 patients), 81.8% were admitted for an emergency, and only 18.2% did so for hospitalization. (22)

Finally, regarding the continuity for the follow-up of patients on predialysis, 45% of the specialist physicians stated that patients do not receive an optimal predialysis evaluation before being referred to the HNAAA. Alarcón et al. Colombia show that 97.1% of hemodialysis patients were admitted unscheduled. The scheduled start of hemodialysis should be a priority objective in the care of CKD. Unscheduled onset occurs in patients hospitalized for emergencies and without definitive vascular access and is associated with higher morbidity, mortality, and cost. On the other hand, the magnitude of patients who enter hemodialysis therapy without prior control in the Renal Health program is worrying, if we add the 60% who only received nephrologist care and the 36.7% who did not have any prior control, we have a 96.7% of patients who start hemodialysis without adequate preparation or conditions. In contrast to the Spanish reality, where preventive kidney health has made great strides, as demonstrated by the study by Álvarez and Velasco, where 56.5% of patients had prior check-ups and were admitted on a scheduled basis. (22)

Also, a worrying situation in a hospital in Lima that 36.7% have no prior control in the predialysis stage. However, the offer of care for this type of patient exists at different levels of health care. This study also showed data about predialysis stage control as a worrying reality; of 30 patients, only 3.3% (1 case) had power in the kidney health program, 60% of them had control only with the nephrologist, and 36.7% had

no control whatsoever, in addition to the clinical characteristics presented at the time of entering hemodialysis therapy, it was found that 66.7% presented anemia, 36.7% showed severe acidosis, 20% hyperkalemia, 16.7% pulmonary congestion, 83.3% azotemia, being anemia is the most frequently found association, all this generates a higher fatality rate and costs associated with immediate treatment. (22)

CONCLUSIONS

The Management of referrals for patients on predialysis to HNAAA was not adequate; According to the study, 50% of the managers lack good training regarding handling the technical norm for this type of patient management.

Regarding the quality of the referrals, it can be concluded that 50% of the doctors expressed their constant dissatisfaction with the system; however, quality is affected because a significant percentage of them stated that they did make the referrals correctly, so there is considerable inconsistency in the perception of the service.

Regarding the accessibility of referrals, 35% of kidney patients were initially cared for by the nursing staff; 30% by other health professionals (nutritionist, psychologist, social worker, and laboratory personnel); finally, access to a specialist doctor is often achieved late, complicating the health situation of the kidney patient.

Regarding the opportunity to coordinate with specialist doctors, 50% of the doctors in the periphery confirmed that there is no coordination with the specialists. The former state that they record the reason for the referral to the hospital.

Finally, regarding the continuity for the follow-up of patients on predialysis, 45% of the specialist physicians stated that patients do not receive an optimal predialysis evaluation before being referred to the HNAAA.

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