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PROPOSAL TO A PROTOCOL FOR MONITORING CHRONIC KIDNEY DISEASE IN PRIMARY HEALTH CARE

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ABSTRACT

Objective: to propose a protocol for monitoring chronic kidney disease in primary health care. **Method:** exploratory study organized in two phases, elaboration and evaluation of the protocol. The sample used to evaluate the protocol was composed by 15 health professionals and data were collected between August and September 2014, through a questionnaire. **Results:** the protocol was structured in six instruments: identification; self-reported interview of risk factors; nursing consultation; medical consultation; service flow chart; and protocol instruction manual and guidelines. The elaborated protocol presented content validity and reached consensus, on average 98.9% from the answers by nurses and doctors. **Conclusion:** the protocol supports improvements in the care of individuals at risk of chronic kidney disease, as well as guiding health professionals to make decisions regarding to the timely referral to the specialist, thus minimizing the health problems arising from this disease.

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INTRODUCTION

Chronic kidney disease is projected worldwide as one of the biggest challenges to public health due to its high mortality, morbidity and costs. In Brazil, there were 15 thousand deaths due to kidney disease and funded by the Unified Health System R $ 2.2 billion in high complexity procedures for patients (K / DOQI, 2002; BRAZIL, 2014). Chronic kidney disease is defined as renal parenchyma injury and / or decreased renal function present for a period of 03 or more months. Its development is associated to risk factors such as hypertension, diabetes, advanced age, smoking, obesity, family history of kidney disease, nephrotoxins usage and history of cardiovascular disease (BRAZIL, 2014).The diagnosis is based on the identification of risk factors, presence of urinary sediment changes and reduction of glomerular filtration. When diagnosed at an early stage, chronic kidney disease has a better prognosis and guarantees lower health care costs. For this, monitoring is fundamental and can be performed in different ways, from routine laboratory tests to strategic programs to obtain sociodemographic and clinical data in risk groups (BRAZIL, 2014; BRAZIL, 2010). Studies on prevention and monitoring strategies for chronic kidney disease are being conducted worldwide, such as in Europe and the United States through lifestyle change awareness campaigns and programs to monitore individuals at risk for developing the disease. However, in Brazil there are few studies available on the prevalence of chronic kidney disease, which hinders the implementation of public health policies aimed at prevention and monitoring (BASTOS *et al*., 2010; MENDES, 2012). It is noteworthy that the national protocols and guidelines of chronic kidney disease present information such as disease definition, prevention, diagnosis, treatment and epidemiology. However, little is known about the monitoring of chronic kidney disease in primary care, as the literature describes the low detection of the disease at this level of attention, characterizing the deficiency of recommendation or evaluation protocol (BRAZIL, 2014). This study is justified by the need for protocols and instruments for the tracking of chronic kidney disease, and especially for the systematization of care, enabling the early diagnosis and organization of primary care health services.Given the above, the question that guides this study: which items are necessary to compose the

monitoring protocol for chronic kidney disease to be used in primary health care? To answer the question, this research aims at proposing a protocol for the monitoring of chronic kidney disease in primary health care.

MATERIALS AND METHODS

Descriptive and exploratory study divided into two phases: construction of the protocol for the monitoring of chronic kidney disease in primary health care and evaluation of the protocol by specialists.The study sample consisted of 15 health professionals living in Brazil, three nephrologists, four general practitioners, five nephrologists and three general nurses. Health professionals resident outside Brazil, professionals without the title of nephrology specialist or clinical experience of less than one year with chronic kidney disease and/or primary care were excluded from the study.For the construction of the protocol, a literature survey on the aspects of kidney disease protocols was conducted and an instrument was built based on these aspects and studies already conducted in Brazil. The literature survey was based on the national clinical guidelines on kidney disease (2014), on the conceptual model called "Basic Human Needs" by Wanda Horta (1979), on the Nursing Process model based on Federal Nursing Council Resolution No. 358 (2009) and in the Medical Consultation model based on the Resolution of the Federal Council of Medicine No. 1,958 (2010), including other complementary references, which address the care facing chronic kidney disease in primary care.

To evaluate the protocol, two distinct questionnaires were used, one specific for medical area and another for nursing. It is noteworthy that the questionnaire for the nursing area was built based on the Nursing Process, so it would not be so clear the same placement for physicians, being necessary to elaborate another more appropriate questionnaire for the medical area.In the first part of the instrument, the questionnaire addressed information about the professional profile of the specialist, such as: age, gender, vocational and complementary education, work sector, time in the care of patients with kidney disease and time spent in primary care.

The second part considered aspects of the protocol for monitoring kidney disease in primary care regarding to: patient identification form and self-reported interview of risk factors; files used for medical consultation and nursing consultation. This second part also contemplated the expert opinion about the degree of importance of the aspects for the protocol composition.For the data collection procedure, a contact was made (personal, telephone or e-mail) to schedule the application of the instrument. In this contact, some experts mentioned the desire to respond electronically. It is noteworthy that all experts signed the Informed Consent Form. The collection took place from August to September 2014, by the researcher.The nurses were asked to analyze 109 questions, corresponding to 220 items of the instrument. The doctors were asked to analyze 13 questions, corresponding to 42 items of the instrument. In total, 207 items were evaluated by nurses only, 29 items were evaluated by doctors only and 13 items were evaluated by both nurses and doctors.After the experts' answers, content validation was performed, using the Likert Scale (score 1 - Not Important; score 2 - Little Important; score 3 - Important; score 4 - Very Important; score 5 - Extreme Importance). Items with a score of 03 or higher were kept in the protocol, while items with a score of less than 03 were excluded from the protocol. For data analysis, the Statistical Package for Social Sciences (SPSS) version 13 software was used.This study complied with the ethical principles, and the project was submitted and approved by the Research Ethics Committee of the Pontifical Catholic University of Paraná, under No. 745.193.

RESULTS

As instruments that make up the protocol, there are "Identification Form" that contains general data that identifies the patient and sociodemographic information. The second instrument of the protocol presented in Chart 1 is the "Self-Reported Interview of Risk Factors / Groups", which addresses the patient's health situations and conditions.

Chart 1. Instrument: Self-Referred Interview. Brazil, 2014

Elderly patient? (over 60 years)	Yes	No
Obese patient? (BMI> 30 kg / m^2)	Yes	No
Do you smoke? Are you a smoker?	Yes	No
Do you have diabetes?	Yes	No- Don't know
Do you have Hypertension?	Yes	No- Don't know
Did you have a stroke?	Yes	No
Did you have a haear attack?	Yes	No
Do you have heart deseases?	Yes	No- Don't know
Do you have ou had kidney diseases	Yes	No
If so, which ones?		
Do you have a family history of CKD?	Yes	No- Don't know
Do you continually use medications *?	Yes	No

*Analgesic, Anti-inflammatory, Antibiotic, Cholesterol Reducer, Chemotherapy and Anticoagulant. *Source: research data.

This interview aims identifying the individuals who are at risk of developing chronic kidney disease through risk factors.The third instrument of the protocol presented in Chart 2 is called "Nursing Consultation", used for collection of nursing data.The fourth instrument of the protocol presented in Chart 3 is the "Medical Consultation", used to collect medical professional data that will be the basis for the early diagnosis of chronic kidney disease.It is noteworthy, for this protocol, that the conducts to be defined by the medical professional must be in accordance with the recommendations of the Ministry of Health, especially regarding to the request of laboratory and imaging tests for the tracking of chronic kidney disease. The fifth instrument of the protocol is the "Patient Care Flowchart in the Primary Health Care Unit", which establishes the sequence of activities associated to patient care in primary care, ensuring that the protocol will be properly applied by health professionals.The sixth instrument corresponds to the "Protocol Completion Instructions and Guidance Manual".

Chart 2. Instrument: Nursing Consultation. Brazil, 2014

1. ANAMNESIS
1.1 Complaints;
1.2 Risk factors;
1.3 Pre-existing diseases;
1.4 Previous treatments;
1.5 Medicines in use in the last 60 days;
1.6 Environmental and shelter conditions;
1.7 Body Care;
1.8 Conditions that the patient presents to perform body care;
1.9 Occupation / exposure to nephrotoxic agent at work;
1.10 Sleep and rest;
1.11 Physical exercises;
1.12 Food consumption;
1.13 Water intake;
1.14 Urinary eliminations;
1.15 Intestinal eliminations;
1.16 Sexuality;
1.17 Troubleshooting;
1.18 Financial support;
1.19 Knowledge about your health.
2. PHYSICAL EXAM
2.1 Blood pressure, Pulse, Respiratory rate, Body temperature, Capillary blood glucose, Weight and Height;
2.2 Nutritional status;
2.3 Mental state;
2.4 Movement;
2.5 Leather / Tissues;
2.6 Skull;
2.7 Eyes;
2.8 Ears;
2.9 Nose;
2.10 Mouth;
2.12 Breathing apparatus;
2.13 Cardiovascular system;
2.14 Abdomen;
2.15 Urinary tract;
2.16 Upper and lower limbs.
3.NURSING DIAGNOSTICS, NURSING INTERVENTIONS AND EXPECTED OUTCOMES
4. NURSING EVOLUTION
5. NURSE PROFESSIONAL IDENTIFICATION

Source: research data.

Chart 3. Instrument: Medical Consultation. Brazil, 2014

1. MEDICAL EVOLUTION
1.1 Anamnesis;
1.2 Physical Examination;
1.3 Antiproteinuric drugs uage;
1.4 Diagnostic hypotheses;
1.5 Main diagnostics;;
1.6 Conducts.
2. EXAMS CONTROL
3. MEDICAL PROFESSIONAL IDENTIFICATION

Source: research data

In order for the protocol's data collection instruments to guarantee the quality of health information, instructions were formulated, which provide adequate guidelines for filling in the technical and conceptual information.After the protocol elaboration, the expert evaluation was performed.

Regarding to the frequency of answers by expert, 12 established the highest number of frequency of answers with score 5 and three experts established the largest number with score 4, which correspond to extremely important and very important items, respectively. From these specialists, three doctors and one nurse answered that all instruments presented items of extreme importance for the care facing chronic kidney disease in primary health care.Given the above, a consensus was reached, with an average of 98.9% of the important answers for the nursing and medical area, evaluating the proposed protocol of care for the screening of chronic kidney disease in primary health care.

DISCUSSION

In the survey of the proposed guidelines on chronic kidney disease in Brazil, the two documents from the Ministry of Health stand out: Primary Care Notebook No. 14 Clinical Prevention of Cardiovascular, Cerebrovascular and Chronic Kidney Disease; and the Clinical Guidelines for the Care of Patients with Chronic Kidney Disease in the Unified Health System (BRAZIL, 2006; BRAZIL, 2014). These documents were used to list the proposed recommendations on chronic kidney disease in Brazil for prevention, monitoring, evaluation, diagnosis, treatment and follow-up of patients in primary care.The nurses and general practitioners working in the primary care who participated in the study informed, in an invitation interview, that they do not know any protocol for the monitoring of chronic kidney disease in the public health network. Monitoring is known to be paramount for detecting risk factors and early diagnosis of chronic kidney disease

(BRAZIL, 2010). Considering that specific care for patients with chronic kidney disease requires a multidisciplinary team, a study adds from this perspective that primary care physicians and nurses are almost always responsible for the first contacts with patients with chronic kidney disease (ROMÃO Jr, 2004).

In this sense, the questionnaires used to evaluate the care protocol for monitoring chronic kidney disease in primary care were applied to doctors and nurses. With an average of 98.9% of responses, it is evident that the information proposed in the protocol is essential for the systematic care of patients at risk of chronic kidney disease in primary care.Of the instruments that make up the protocol, the Self-Reported Risk Factors / Groups Interview deserves special attention, as it is a questionnaire whose questions allow the identification of individuals who are at risk of developing chronic kidney disease, through the factors of risk. From this identification, the nurse can follow up the care for chronic kidney disease using the protocol as a guide.Bastos *et al*. (2007) recommend that primary care professionals perform a selective monitoring among individuals belonging to well-established risk groups for the disease: Hypertensive, Diabetic, elderly and relatives of chronic renal failure.In this perspective, the early capture of patients and the construction of a structured care flow in a care network that allows adequate care constitute, today, a challenge for the Unified Health System (BRITO *et al*., 2013). Therefore, the care protocol for the monitoring of chronic kidney disease in primary care, a product of this work, can be seen as a contribution to the systematization of care in the public health network.

Conclusion

It is concluded that in Brazil there are few studies available on the prevalence of kidney disease, which makes the prevention and control of this disease difficult. Therefore, it is necessary to know alternative instruments for the monitoring of chronic kidney disease, according to material and human resources, as well as the public health policies in force in the country.This study points out that the protocol developed for the monitoring of chronic kidney disease is an innovative instrument, based on public health policies in Brazil. The instrument includes important information for primary care professionals, allowing them to better understand, welcome and refer patients with chronic kidney disease in the Unified Health System network.

It is also concluded that this study is the beginning of numerous studies that need to be performed involving chronic kidney disease, especially regarding to monitoring, which has been presented as a challenging issue in several countries.With the proposed protocol for monitoring chronic kidney disease presented in this study, it is expected to improve care in the Basic Health Units, optimize patient care and ensure timely referral to the specialist, thus minimizing the problems arising from this disease.

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