

Survey on the Use of Clinical Practice Guidelines by Latin American Physicians: preliminary results

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SUMMARY

Background

There is a broad consensus about the benefits of applying Clinical Practice Guidelines (CPGs) as a standard of care and most countries, even in Latin America; however, the applicability of CPGs to medical practice is lower than expected. The failure in the implementation of CPGs is due to several factors, including physicians' lack of adherence.

Objective

To estimate the utilization rate of CPGs and to know the objections of Latin American cardiologists against them.

Material and Methods

We conducted an anonymous email survey among 10% of the Spanish-speaking members of the Interamerican Society of Cardiology that were randomly selected. The questions included demographic data, use of CPGs and objections to use them. We assumed that most of the respondents would make a positive answer when asked about the use CPGs; yet, we also assumed that they would criticize and comment the limitations of CPGs if they were induced to do so.

Results

The survey was responded by 952 of the 1197 cardiologists selected. The utilization rate of CPGs was 91.5%; 75.8% (660/871) used foreign and local guidelines, while 24.2% only used local CPGs. 58.2% of survey respondents had at least one objection to the quality or usefulness of CPGs. The most common complaints were that the guidelines proposed the use of resources that were not always available (11.5%), recommended impractical strategies due to lack of medical coverage (9.2%) and did not represent the patients in real practice (7.7%). Among those who did not use CPGs, 22.2% did not know the last guidelines published.

Conclusions

Although the utilization of CPGs is high, the objections about their usefulness constitute a barrier to improve the adherence of cardiologists to use them. These data should be considered to improve the production, diffusion and implementation of CPGs in Latin America.

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Key words > Clinical Practice Guideline - Cardiology

Abbreviations > CPGs Clinical Practice Guidelines | IASC Inter-American Society of Cardiology

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BACKGROUND

There is broad consensus about the benefits of applying Clinical Practice Guidelines (CPGs) to patient care. CPGs equalize and reduce the inappropriate variability in care guidelines by spreading the word about scientific advances based on objective evidence. According to the US Institute of Medicine, the CPGs are “systematically developed statements to assist practitioners and patient decisions about appropriate health care for specific clinical circumstances.” (1) Since the paradigm of evidence-based medicine has been gaining ground, more and more countries have adopted the CPGs as part of a strategy to optimize health care. This worldwide tendency has also been observed in Latin America, where the production of local CPGs has increased in recent years. (2) However, putting the evidence of the clinical benefit contained in the CPGs into practice has been controversial, and this transfer is below expectations. (2-5) Not implementing CPGs is related to several factors, including physicians not following them (6, 7) (in many cases referred to as limitations in professional autonomy), and the barriers that prevent CPGs from expanding them in the structure of health care systems. (6-8) Compared with other specialists, cardiologists show a higher degree of compliance to CPGs; (8) however, the level of adherence might be substantially higher. (5, 9) Improving it implies, to a large extent, being aware of the reasons why professionals do not apply CPGs, or only partially do so. (6, 10) This study was conducted for the purpose of evaluating the profile of acceptance and use of CPGs among Latin American cardiologists.

MATERIAL AND METHODS

We conducted an anonymous email survey among cardiologists from 12 Spanish-speaking countries, within a research study of the Inter-American Society of Cardiology (IASC). This report is a preliminary result of a larger study that will include Lusitanian-speaking physicians. We used the register of Spanish-speaking cardiologists from the IASC. Of a total of 11,970 registered members, 10% was randomly selected (1,197 members) and sent a questionnaire to be answered anonymously by email.

A list including a randomized number was created, and the 1,197 members were selected by simple random sampling. Since the survey was anonymous, it is impossible to know if each reply corresponds to a single subject, although it is unlikely that a physician had responded to the questionnaire on several occasions.

Table 1 shows the sampling response rate together with the total surveys sent to each country, and the percentage of responses obtained. The questionnaire was developed by the research group who based on the literature mentioned (6, 10, 15), and was not validated before being used. The first part included general questions about the country of origin, sex, age, graduation year as cardiologist, main public or private working area, work activity in coronary units or outpatient clinics. The second part of the questionnaire was about the use (or not) of CPGs in everyday activity, about the type of CPGs used (from his/her country, from other countries, or both), and the possible objections he/she found (Table 2).

Among the study assumptions, it was considered that most physicians would respond positively to the question about the use of CPGs. However, it was assumed that they would also criticize and express the limitations of CPGs if they were induced to do so. Respondents were included in a database using Microsoft Excel 2003.

Statistical Analysis

Continuous variables were expressed as mean \pm standard deviation, and discrete variables as absolute value and percentages. The sample was divided into physicians who used CPGs and those who did not; comparisons between both groups were analyzed with the chi-square test (for discrete variables) and the t test (for continuous variables). The differences were statistically significant, with a two-tailed p-value < 0.05 . Data were analyzed with the EpiInfo 3.3.2 software.

RESULTS

The survey was responded by 952 cardiologists from Argentina, Bolivia, Colombia, Chile, Mexico, Paraguay, Peru, Uruguay, and Venezuela. Table 3 shows the characteristics of the total population of respondents. A 91.5% (871 subjects) answered that they followed the CPGs in their usual medical practice. A 75.8% (n = 660) of them used local and foreign guidelines, while the rest (24.2%, n = 211) only used local CPGs. Another relevant information is that 11.7% said that they did not know the CPGs.

Among the physicians who responded that they followed the guidelines in their medical activity, 514 (59%) reported at least one objection to the CPGs. The most common complaints were that these guidelines proposed the use of diagnostic and/or therapeutical resources that were not always available at the workplace (11.5%), the patients' use of impractical strategies due to lack of medical coverage or resources (9.2%), and that CPGs did not represent patients in real practice (7.7%). In the case of physicians who did not use CPGs, their main reasons were that

Table 1. Number of surveys sent and replied per country

Country	Sent	Replied	Response Rate
Argentina	661	549	83.06
Bolivia	19	12	63.16
Colombia	64	58	90.63
Cuba	10	6	60.00
Ecuador	36	24	66.67
Mexico	244	177	72.54
Nicaragua	9	6	66.67
Paraguay	29	21	72.41
Peru	34	29	85.29
Puerto Rico	12	7	58.33
Uruguay	53	43	81.13
Venezuela	26	20	76.92
Total	1.197	952	79.53

Fig. 2. Questionnaires used to detect objections to the use of CPGs

1. They do not represent the reality of patients I see.
2. I am not interested in them because they cannot be applied to daily medical practice.
3. Patient care time is not enough for me to consult and apply them.
4. The goals they propose to reach are not realistic.
5. They are impractical to be implemented.
6. They are not open to consultation or easily available.
7. They propose the use of diagnostic or therapeutical resources not available at my workplace.
8. I consider that my own knowledge is more appropriate to manage patients.
9. I believe they are a copy of what is done in other countries, and are not applicable locally.
10. They propose unfeasible methods for patients due to lack of medical coverage or resources.
11. They are very long to read or difficult to understand.
12. The recommendations included are culturally different from our environment.
13. I am not acquainted with the latest clinical practice guidelines.

Table 3. Characteristics of the surveyed population

Variable	n (%)
n	952
Women	252 (21.7%)
Age (mean \pm standard deviation)	46.2 \pm 11.1
Resident in cardiology	836 (87.8%)
Works in Coronary Care Unit	576 (60.5%)
Works in an outpatient clinic	857 (90.0%)
Works mainly in the public sector	350 (36.8%)
Works mainly in the private sector	602 (63.2%)

they did not know the latest CPGs (22.2%), that the recommendations are unrelated to the cultural environment in which professionals worked (12.3%), and that CPGs proposed the use of diagnostic and/or therapeutical resources that were not always available at their workplace (12.3%). Figure 1 shows a complete distribution of the responses.

Table 4 shows the characteristics of respondents who used –or not– CPGs. A higher proportion of physicians under 15 years of graduation working mainly in outpatient clinics is observed among those who followed CPGs.

DISCUSSION

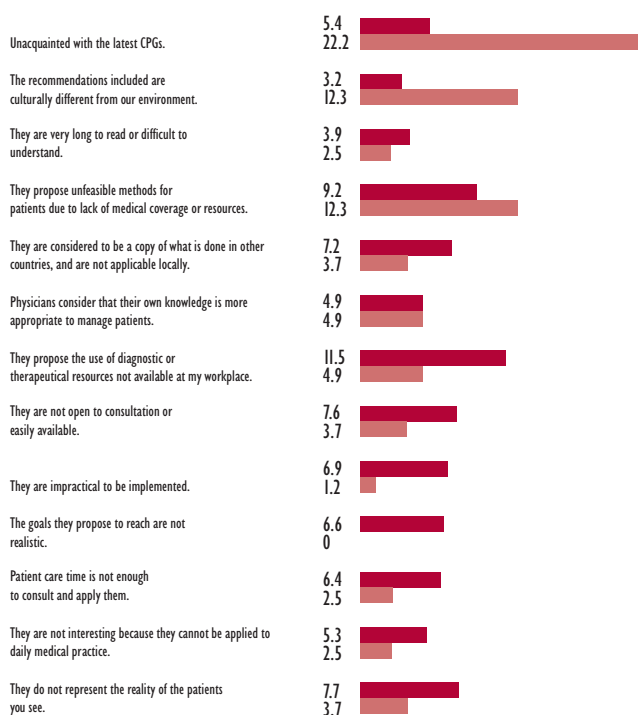
In our survey, most professionals report that they followed CPGs in their usual medical practice, which might be related to the growing awareness of the health care benefits of using them.

This benefit has already been demonstrated in the 1990s by Grimshaw et al (11), in a systematic review of studies that evaluated the results of CPG implementation on patient care, verifying that 55 – out of 59 studies– reported improvements in health care quality. These improvements are also valid for cardiovascular diseases, as demonstrated by Schiele et al, (12), who prospectively observed a 20% mortality reduction at one year in patients with acute myocardial

infarction when adherence to CPGs was increased. Other studies also showed how the use of CPGs influences on mortality due to ischemic heart disease associated with diabetes, (13) and on the rate of use of diagnostic exams, such as coronary angiography. (14) Compared with other specialists, cardiologists usually present a higher rate of use of CPGs. An example of this is the study by Escosteguy et al, (8), in which CPG utilization was analyzed among plans offered by health care providers from Brazil; in the case of cardiovascular disease guidelines, their use was over 80%.

In our study, 59% of the physicians who used the CPGs reported one or more objections to them. Limitations to these guidelines represent a barrier for following CPGs. (6, 10) Among the main barriers to physician adherence to CPGs, Cabana et al (6) reported that physicians did not know about the existence of guidelines, were unfamiliar with them, disagreed with their content, and did not trust in their recommended objectives. Objections referred to by respondents in our work targeted barriers caused by discrepancy of recommendations about the health care system (for example, the type of medical coverage), and the epidemiological characteristics of patients. This type of limitations have also been recognized in international (2, 6) and local studies. (10, 15-17) In the study by Sánchez et al, (15) carried out among oncologists from Colombia, almost 40% of respondents considered that the use of CPGs would be limited by economic and administrative barriers. This limitation to CPG adherence may be related to the process of development and adaptation of local CPGs, mainly with the adoption of technologies and recommendations from other countries with different realities. (4, 18-19)

As for the reasons reported by surveyed cardiologists for not using CPGs, lack of knowledge was the most common one. These findings match the information from the international and local literature (6, 10, 15), which constitutes a complex barrier that involves scientific societies and local health care authorities.



p	OR (CI 95%)
< 0.01	0.20 (0.11-0.38)
0.0002	0.24 (0.10-0.54)
0.731	1.60 (0.37-9.84)
0.464	0.72 (0.34-1.55)
0.333	2.03 (0.60-8.28)
0.789	1.00 (0.33-3.37)
0.105	2.50 (0.86-8.20)
0.288	2.13 (0.63-8.69)
0.080	5.92 (0.87-116.4)
0.033	Undefined
0.237	2.71 (0.63-16.39)
0.400	2.20 (0.51-13.37)
0.274	2.17 (0.64-8.83)

Fig. 1. Complete distribution of the responses.

	GI (n = 94)	GII (n = 29)	GIII (n = 24)	p
n	871	81		
Women	189 (21.7%)	63 (77.8%)	0.08 (0.04-0.14)	< 0.0001
Age (mean ± SD)	46.6 ± 11.0	48.4 ± 16.7		0.23
Resident in cardiology	769 (88.3%)	67 (82.7%)	1.58 (0.81-3.00)	0.19
Works in Coronary Care Unit	535 (61.4%)	41 (50.6%)	1.55 (0.96-2.51)	0.074
Works in an outpatient clinic	801 (91.9%)	56 (69.3%)	5.11 (2.90-8.96)	0.0001
Works mainly in the public sector	314 (36.0%)	36 (44.4%)	0.70 (0.43-1.14)	0.16
Under 15 years of graduation	328 (37.6%)	21 (25.9%)	1.73 (1.00-2.99)	0.04

Table 4. Comparative characteristics between respondents who referred to use CPGs and those who referred not to use them

Limitations

The limitations of our study include the sample size of cardiologists surveyed (10% was taken for feasibility reasons), which could have been larger. Moreover, it has been a biased sample because it included physicians who are in a database of a scientific society, whose preponderance of responses came from a single country (58% of the responses are from Argentina), and do not necessarily represent the total of professionals. The questionnaire was not validated. Another limitation is that the statement made by respondents about the use of CPGs does not indicate that it is indeed the case.

CONCLUSIONS

In our study, we observed that a high proportion of respondents followed CPGs in their medical practice and identified the main objections to their utilization. These objections constitute some of the barriers that should be taken into account to define strategies in order to improve adherence to CPGs.

RESUMEN

Encuesta sobre el uso de Guías de Práctica Clínica en cardiólogos de Latinoamérica: resultados preliminares

Introducción

No obstante el amplio consenso acerca de los beneficios de la aplicación de Guías de Práctica Clínica (GPC) en la atención de pacientes y de su adopción por cada vez más países, incluso de Latinoamérica, su traslación a la práctica se encuentra por debajo de lo esperado. La falla en la implementación de las GPC está ligada a varios factores, entre los cuales se encuentra la falta de adherencia de los médicos.

Objetivo

Estimar la tasa de uso de Guías de Práctica Clínica (GPC) y conocer las objeciones a ellas entre cardiólogos latinoamericanos.

Material y métodos

Se realizó una encuesta anónima por correo electrónico en una muestra aleatoria del 10% de cardiólogos hispanohablantes de la Sociedad Interamericana de Cardiología. Se relevaron datos demográficos, uso de GPC y objeciones respecto de

ellas. Entre los supuestos del estudio se consideró que la mayoría respondería positivamente ante la pregunta del uso de GPC; en cambio, se supuso que también manifestarían críticas y limitaciones de las GPC si se les indujera a ello.

Resultados

De 1.197 encuestados se obtuvo respuesta de 952. El 91,5% refirió que utilizaba GPC; de éstos, el 75,8% (660/871) recurría a GPC extranjeras y locales, mientras que el 24,2% sólo usaba GPC locales. El 58,2% de los encuestados refirió al menos una objeción a la calidad o utilidad de las GPC. Las críticas más comunes fueron que las guías proponían el uso de recursos no disponibles en los lugares de trabajo (11,5%), que recomendaban métodos no pasibles de utilizar por falta de cobertura (9,2%) y que no representaban la realidad de los pacientes asistidos (7,7%). Entre los encuestados que no las utilizaban, el 22,2% refirió que desconocía las últimas GPC.

Conclusión

Si bien el uso de GPC es alto, la presencia de objeciones vinculadas a su utilidad constituye una barrera para mejorar la adherencia de los cardiólogos a ellas. Estos datos deben tenerse en cuenta para mejorar la confección, la difusión y la implementación de GPC en Latinoamérica.

Palabras clave > Guía de Práctica Clínica - Cardiología

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Declaration of conflict of interest

The authors declare they have no conflict of interest related to this study