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Latin America consensus statement inflammatory bowel disease: importance of timely access to diagnosis and treatment

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Abstract

Background: Inflammatory bowel diseases (IBDs) are chronic conditions that negatively interferes with the quality of life of the patients, on a physical, emotional, and social level. Its symptoms can vary including diarrhea, bleeding, abdominal pain, fever, and weight loss, depending on the type and location and severity of the disease. Despite evolving treatment, they do not always achieve control of the symptoms, so between 23% and 45% of people with idiopathic chronic ulcerative colitis, and up to 75% of those with Crohn's disease, eventually, will need surgery.

Objective: The increase in its incidence in Latin America has promoted a renewed interest on the part of the medical and scientific community in standardizing and unifying criteria for the proper diagnosis and management of the disease, which is part of the current discussions of various events; however, this interest has not yet been reflected in policies and initiatives by governments to address the disease. We decided to develop a consensus meeting in order to elucidate the actual situation of IBD care in our region.

Design: The methodology employed to build the consensus document derived from a review of literature, evidence, and policies on IBD, followed by a process of validation and feedback with a group of 10 experts in the field.

Methods: Nine experts from different countries in Latin America were reunited in web meetings on 2 days and voted on topics derived from the consensus document. A full agreement with 100% approval was needed, so topics were discussed to reach the consensus otherwise were removed.

Results: There is still a lack of information about IBD in Latin America, therefore IBD continues to be an 'invisible' disease and is little recognized by decision-makers.

Conclusion: This document describes the current situation of IBDs in the Latin American region, highlighting the main barriers and challenges in timely access to diagnosis and treatment, in order to demonstrate the need to promote the development and implementation of policies, in order to improve the quality of care of patients with IBD.

Keywords: Crohn's disease, diagnosis, inflammatory bowel disease, treatment, ulcerative colitis

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Introduction

Inflammatory bowel diseases (IBDs) are chronic intestinal diseases with unknown cause that affect approximately 6.8 million people in the world. Although it can manifest in men and women of any age, most patients are young adults between the ages of 20 and 40. The term encompasses several diagnoses, the two most important being idiopathic chronic ulcerative colitis (UC) and Crohn's disease (CD).[1–5]

IBD has a strong impact on the daily life of patients and negatively interferes with their quality of life on a physical, emotional, and social level. Its symptoms include diarrhea, bleeding, abdominal pain, fever, and weight loss, depending on the type of disease and location. Medications do not always manage to control the symptoms of all patients with IBD, so between 23% and 45% of people with idiopathic chronic UC, and up to 75% of those with CD, eventually, will need surgery. In addition, in certain cases, patients with IBD have a higher risk of developing colon cancer than the rest of the population. The risk increases with the duration and extent of the disease and usually appears 8–10 years after initial diagnosis.[6,7]

Although the definitive cause of IBD is unknown, the development of the disease has been associated with genetic, predisposing, immunological and mainly environmental factors (As the tobacco, stress, and infections). While IBD has been considered a prevalent disease in European countries, in the last two decades, its incidence has increased in other regions, partly because of changes in the environment and the lifestyle of the population, including dietary changes.[1,8–20]

In order to raise awareness and sensitize the population, World IBD Day is celebrated every 19th May. It is an initiative led by the European Federation of Crohn's and UC Associations and with the participation of patient organizations from the region, including organizations from Mexico, Argentina, and Brazil. Every year they carry out different activities, such as campaigns on social networks, which seek to generate empathy about the realities of the people affected and raise the level of knowledge among the general population. Although the World Health Organization recognizes the world IBD day, there has been no official pronouncement from it, nor calls to attend to and prioritize this disease in the health agendas.[21,22]

In turn, the increase in its incidence in Latin America has promoted a renewed interest on the part of the medical and scientific community in standardizing and unifying criteria for the proper diagnosis and management of the disease, which is part of the current discussions of various academics events. However, this interest has not yet been reflected in policies and initiatives by governments to address the disease. Therefore, IBD continues to be an 'invisible' disease and is little recognized by decision-makers.[23–37]

This document describes the current situation of IBD in the Latin American region, highlighting the main barriers and challenges in timely access to diagnosis and treatment, in order to demonstrate the need to promote the development and implementation of policies that reduce the burden of the disease and improve the quality of life of patients with IBD.

Methodology

On 16 and 17 September 2020, a virtual consensus meeting was held with the participation of nine experts, where a draft document based on existing evidence in the region on IBD was presented. During the meeting, a series of validation questions were used to analyze and discuss the information that was included in the document regarding the current panorama of the incidence, prevalence, and burden of the disease in Latin America, the current conditions in the management and diagnosis of the disease, and the access to treatment. During the facilitated discussion with the experts, different rounds of questions were carried out seeking to unify or align opinions regarding the current problem and the necessary measures to address it. As a result, recommendations were generated on the policies and necessary changes to raise the level of sensitivity about IBD, in order to inform decision-makers seeking to facilitate access to the best possible treatment for patients with said condition.

Participating experts

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Juan Andres De Paula	Argentina
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Beatriz Capdevielle	Mexico
Beatriz Iade	Uruguay
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Incidence, prevalence, and burden of the disease

Data on incidence, prevalence, and burden of the disease

There is little information on IBD in the world, particularly in the Latin American region. The main studies carried out come from developed countries, such as the United States, Canada, and European countries. In contrast, the epidemiological data available in Latin America are very limited.

Globally, IBD affects approximately 6.8 million people, being more prevalent in women (approximately 3.9 million) than in men (3 million); however, the differences are marginal, and, therefore, gender is not considered a risk factor for the disease. Traditionally, IBD has presented a bimodal pattern with a peak incidence between 15 and 30 years of age and, to a lesser extent, between 55 and 70 years of age. However, recent data have identified the highest incidence among 20–40-year-olds.[5,38–40]

The highest IBD incidence rates have been reported in North America and Western Europe and the lowest in Eastern Europe, Africa, Latin America, and Asia; these regions of the world constitute the traditionally called low-risk areas.[16,18,40] Recent studies report a change in the trend of these traditional patterns of incidence, and, in low-risk regions, the numbers show a progressive increase reaching levels comparable to those of developed countries in some areas.[16,12] The factors possibly involved in this phenomenon have been the adoption of lifestyle from Western countries (the urbanization and environmental modification), such as diet (exposure to processed foods, refined sugars, dairy products, and less fiber intake) and smoking, as well as the improvement of sanitary conditions. Some of these changes in the figures can be partially explained by the application of new diagnostic methods, a greater search for case detection, and a refinement in the methodological quality of the studies. Despite these potential sources of confusion, the consistency across the different studies indicates that this is most likely a real increase due to environmental and population factors.[18,38–42]

According to a systematic analysis of the global burden of IBD carried out in 195 countries between 1990 and 2017, IBD has increased by more than 50% in that period of time, reaching 89.6 cases per 100,000 people.[39] For its part, the estimated prevalence for Latin America and the Caribbean has also increased considerably, from 28.1 cases in 1990 to 33.7 cases per 100,000 people in 2017, with the increase in the child population being particularly noticeable. Among the countries with the highest prevalence in South America, Brazil stands out as the highest in the entire region. (50.8 cases per 100,000 people) (Tables 1 and 2).[5,11,21,38,39]

Although the global analysis shows a considerable increase in cases in the region in recent decades, the substantial lack of high-quality population studies of IBD in Latin America makes it difficult to have up-to-date and rigorous evidence on the incidence and prevalence of IBD.[11] Most of the studies on the evidence and prevalence of IBD in Latin America are outdated and are not based on population-based statistics; therefore, they do not allow inferring the incidence and prevalence of IBD correctly in these countries. The data of these studies are taken from hospital records in a single location, from peripheral centers of private practice, or from the records of drug claims in government entities.[40] In addition, many epidemiological studies carried out in the region have been based on hospital admission diagnoses, which underestimate the true incidence because a large proportion of patients are never hospitalized and, therefore, are not counted.[11,25,37,40,43]

Table 1. Prevalence of IBD around the world.

Region	Prevalence per 100,000 people
Global	89.6
North America	505.4
Europe and Central Asia	146.5
Pacific Asia	125.9
Latin America and the Caribbean	33.7
Middle East and North Africa	16.5
South Asia	9.89
Sub-Saharan Africa	6.71

Source. GBD 2017 Inflammatory Bowel Disease Collaborators.

In the same way, comparative epidemiological studies between populations with IBD constitute a great challenge due to the difficulties and complexity in detecting cases, which is a determining factor in the validity of the reports.

Therefore, there is an ignorance about the real epidemiological burden of IBD in Latin America due to the lack of population registries and national and regional statistics. In turn, there is significant underreporting due to the difficulties in diagnosis and the lack of knowledge of doctors for early identification of the disease. Although it is known that there is an upward trend in cases both at the global level and in the region, the existence of specific data at the local/regional level would inform appropriate decision-making to address the disease.[11,36,38]

Impact on the lives of patients

IBD has a strong impact on the lives of those who suffer from it, mainly due to the symptoms that it presents. IBD is characterized by being a chronic disease, with a variable course and in most cases progressive, with a wide spectrum of severity, and stages of remission and activation. The symptoms range from mild to severe during relapses and may disappear or lessen during remissions. The severity of the symptoms and the long-lasting nature of the disease can have an extremely debilitating impact on the lives of patients, with higher rates of depression and lower job participation.[3,21,33,44–46]

In general, the symptoms depend on the type of disease and the segment of the intestinal tract involved. While UC is an inflammation characterized by the appearance of ulcers in the colon and rectum, CD can affect any segment of the gastrointestinal tract. Although UC and CD have similar clinical presentation patterns, there are some differences: UC is characterized by symptoms consisting of bloody diarrhea, crampy abdominal pain, fecal urgency, and rectal tenesmus (sensation of incomplete defecation); meanwhile, CD has even more diverse manifestations, such as abdominal pain, diarrhea, loss of appetite and weight, anemia, fever, fistulas and/or abscesses, fatigue, among others.[25] However, the symptoms do not always express the true severity of the disease. Besides, it is estimated that up to 50% of patients with IBD may have extraintestinal involvement, mainly in joints, skin, and eyes, causing a significant deterioration in the quality of life. The possibility of having some extraintestinal commitment increases with greater disease evolution time.[1–3,15,36,47,48]

IBD affects the physical and psychological state of patients with it in various ways. A study conducted in Spain called 'Inflammatory Bowel Disease: Current Situation and Care Challenges',[27] highlights that the symptoms of IBDs interfere negatively with the quality of life of patients, impacting their daily life, their work activity and even their personal relationships. The study reports that 75% of the patients evaluated registered depressive symptoms during the course of their illness (before, during, and after diagnosis), and many of them registered symptoms of anxiety and stress in relation to the uncertainty in the occurrence of the outbreaks and due to the lack of understanding that patients feel from medical personnel, family members, friends, and within their work nucleus. Therefore, the emotional and psychological state of the patient is affected by the disease, and, in certain cases, they even have an impact on the induction of periods of activity and exacerbation (increase or complication) of the symptoms.[27,28,45,47,48]

Psychopathological factors play an important role in IBD and, in fact, are considered a trigger or driver for 'outbreaks'. Other factors that affect the quality of life of patients are related to the difficulties involved in self-management of the condition, such as the impossibility of consuming

Table 2. Comparative prevalence of inflammatory bowel disease between 1990 and 2017: global, regional (Latin America and the Caribbean), in Brazil, Argentina, Peru, Mexico, and Panama.

Country/Region	Prevalence per 100,000 people 1990	Prevalence per 100,000 people 2017
Global	68.5	89.6
Latin America and the Caribbean	28.1	33.7
Argentina	36.1	47.8
Brazil	48.3	50.8
Mexico	15.2	26.7
Panama	20.5	29.6
Peru	8.32	9

Source. GBD 2017 Inflammatory Bowel Disease Collaborators.

certain foods or the need to use the bathrooms more frequently, which often has repercussions in mental health, as well as the social and labor development of people who suffer from the condition. For this reason, patients with IBD require comprehensive and multidisciplinary care, including psychosocial support.[21,44,49]

There are patient organizations that carry out activities oriented toward IBD. Despite some isolated efforts by these groups, the truth is that organizations focused on IBD are very few in the region, and in certain countries they still do not exist. The role of this type of organization is essential to help raise awareness about the disease, make its impact visible, and advocate for policies and initiatives that benefit patients (Table 3).

Costs and economic impact

IBD also has important economic consequences for patients and the health system. Being a chronic disorder with no identified cure that begins in patients at an early age, they will often need complex treatments throughout their lives, which has a significant impact on health systems, but also on the country's productivity and economic development.[27,28,49,50]

While there is no rigorous information on the direct and indirect costs of IBD in Latin America, studies carried out in countries such as the United States, Canada, and Spain show the possible costs associated with these diseases for the patient and for the country. According to these studies, people with IBD can incur health costs three times higher than people without it. The average annual cost per patient is estimated between $US 3,000 and $22,987; the annual cost of treating people with IBD can reach US$1.28 trillion, which, in the case of Spain, for example, represents 1.8% of public health spending in the country.[3,27,28,50]

In Latin America, it is estimated that the costs may be even higher, considering that a large part of the population is not affiliated with services or health insurances, which further delays the timely diagnosis of the disease and, therefore, access to treatment. This implies that on many occasions these patients diagnosed late will require more care and treatment to manage the condition, as well as they may suffer complications *versus* a patient who is diagnosed and treated on time. In some cases, moreover, health systems do not cover all treatments, a fact which delays access to timely treatment.[28,51,52]

On the other hand, the study carried out in Spain showed that indirect costs are very significant, representing 46.5% of total costs, and are mostly associated with productivity losses due to temporary absences from work and work disabilities. The analysis carried out estimated that more than 40% of active workers with IBD have been absent at some time in the last 3 months due to the disease and 10% of patients willing to have a full-time job, find involuntary part-time employees.[27,28,51]

Table 3. Examples of patient organizations in the region.

Organization	Country	Examples of the activities
Fundación Vivir con Crohn y CUCI	Mexico	It carries out campaigns to highlight the importance of timely and accurate diagnosis of IBD. It advocates before the National Health Commission of the Senate of the Republic so that IBD is considered a priority within the national agenda.
Associação Brasileira de Colite Ulcerativa e Doença de Crohn	Brazil	It recently reached a meeting with the Minister of Health to prioritize the care of patients with IBD.
Fundación Más Vida de Crohn y Colitis Ulcerosa	Argentina	It runs the 'Free IBD early detection' campaign, in which people with IBD symptoms can have appointments free of charge with specialized professionals in different cities of the country.
Fundación Argentina de Ayuda para las Personas con Enfermedad de Crohn y Colitis Ulcerosa	Argentina	It offers services for patients and health professionals.
Fundación Dominicana de Enfermedades Inflamatorias Intestinales	Dominican Republic	They have the objective of making known and increasing awareness about the disease, making a population registry, and try to be recognized by social security.
Fundación de Enfermedades Inflamatorias Intestinales Crohn y Colitis Región Norte	Dominican Republic	

The possibility of having information related to the direct or indirect costs of the disease at the local or regional level is essential to make its impact visible and, therefore, to raise awareness among decision-makers of the importance and value of promoting policies and initiatives that allow timely diagnosis and adequate treatment of the disease.

Diagnosis and management of the disease

In general, the confirmatory diagnosis of IBD is determined following internationally accepted criteria that include clinical, laboratory, endoscopic, histological, and radiological aspects, which also make it possible to rule out possible differential diagnoses.[48] Although in recent years there have been important advances in the diagnostic methods used, achieving a diagnosis at early stage of IBD continues to be one of the main challenges for the timely management of the disease.[15,47,52]

Recent studies in Europe have revealed that in approximately 45% of cases, IBD patients take more than a year to receive a definitive

diagnosis.[22] According to a similar study carried out in Brazil, where 3476 patients participated, only 30.25% of people were diagnosed within 6 months after presenting symptoms. About 30% were diagnosed between 6 months and 1 year, and as many as 20% between 1 and 3 years after their first symptom.[19]

The vast majority of patients are diagnosed late due to a combination of factors among which stand out: self-medication, lack of training of some primary care physicians, which makes it difficult to identify/detect the disease and consequent referral to a specialist, and the complexity of the method for its diagnosis.

First of all, it is important to highlight that the symptoms of IBD (abdominal pain, diarrhea or feeling of tiredness, weight loss) are not specific and can be associated with a multitude of other conditions. Therefore, primary care physicians must comprehensively analyze the patient's symptom picture, eating habits, and lifestyle, to rule out other possible differential diagnoses.[47]

Furthermore, there is no single definitive test to diagnose the disease, as this depends on a combination of tests, many of which can be expensive and not covered by health services or plans, often delaying timely identification. The number and type of tests will depend on each case and not all of them will be necessary. Diagnosis begins with clinical tests that allow the detection of anemia or infections. This is followed by imaging tests that allow visualizing the inflamed areas and help determine the extent, severity, and complications of the disease. Finally, there are endoscopic tests with biopsies that allow a more definitive diagnosis of IBD and provide information on the presence of ulcers, inflammation, and bleeding.[10] In addition, it is necessary to identify not only the areas of the intestine that are inflamed but also the severity of the lesions, since this makes it possible to start the most appropriate treatment on an individual basis.[10,15,47]

Currently, endoscopic evaluation is the most frequently used test in Latin America to detect, measure, and control intestinal inflammation in IBD, which is performed generally before beginning any type of treatment. However, endoscopic evaluation is limited in some countries in the region due to the cost of the procedure, which often leads to late diagnosis. The advent of innovative imaging techniques such as computed tomography and magnetic resonance imaging have progressively replaced conventional radiological studies in high-income countries. However, in Latin America, conventional imaging tests continue to be used, such as radiography due to their low cost and availability.[22,48]

The complexity of diagnosis lies not only in the use of multiple diagnostic tests but also in the fact that the disease is characterized by alternating between active periods known as 'outbreaks' and periods of inactivity or remission, which implies intermittent symptoms over time. A significant percentage of patients present symptoms for years before being diagnosed. The fact that the symptoms are intermittent, often added to the embarrassment and discomfort that they generate, means that patients do not go to the doctor or consult on time, which makes the first assessment or diagnosis at the primary level difficult. In this sense, the misinformation of the general public about the disease, its symptoms, and its implications, is also a barrier to early diagnosis.[21,22,32,48]

Proper and timely diagnosis and treatment could lower costs in the long run. In fact, it has been shown that early diagnosis and treatment increase the effectiveness of medications since the response is better the less injury there is in the digestive tract, generating fewer complications such as surgeries, hospitalizations, and even pensions due to disability. This means that there is what is known as a 'window of opportunity', understood as a period or adequate moment to carry out the most effective intervention that generates the greatest benefit. Many of the patients in the region exceed the window of opportunity and the disease progresses to irreversible structural damage, further aggravating the economic impact for patients.[51–57]

Once the diagnosis is confirmed, treatment and monitoring by the doctor are essential. The objectives are to calm the symptoms, heal the lesions when possible, and try to prevent the disease from reactivating. Since it is a chronic disease, continuity and follow-up of patients are essential. In turn, because of the characteristics, symptoms, and impact on the patient's life, both physical and mental, a comprehensive/multidisciplinary approach is required that includes intervention and coordination of gastroenterologists, surgeons, nutritionists, and even psychiatry and/or clinical psychology.[54] Although there are no standardized data and

official statistics on the number of specialists in each country, long waits and geographical barriers often hinder access to them and, therefore, access to adequate and optimal management of the disease.[55–57]

Regarding the management of the disease, the development of clinical practice guidelines has been variable and inconsistent in the region. In certain countries, such as Brazil and Mexico, there are clinical guidelines for the diagnosis and management of the disease that include recommendations on the use of innovative therapies, which were prepared by government entities such as the National Center for Technological Excellence in Health (CENETEC) in Mexico in 2014 and the National Committee for the Incorporation of Health Technologies (CONITEC) of the Ministry of Health in Brazil in 2019. In other countries such as Argentina, Peru, and Panama there are no local guidelines or consensus. In the case of Argentina and Uruguay, scientific societies promote the use of the evidence-based consensus of the European CD and UC Organization published in 2017.[30,31,48,53]

In 2011, the Pan American Crohn's and Colitis Organization (PANCCO) was established, made up of gastroenterologists from various Latin American countries, including Mexico, Argentina, Brazil, Colombia, Venezuela, and Canada. The purpose of the organization is to increase awareness of IBD, to promote optimal care in the general population and among health professionals through high-quality accessible medical education and training, and to foster research in Latin America. In 2017 PANCCO published the first Latin American consensus to standardize and provide homogeneous criteria for the diagnosis and treatment of IBD.[48] It is important to mention that the existence of a consensus at the regional level does not guarantee its adequate implementation in all the countries of the region, but it is a good first step to have a regional guide that is adaptable to the countries, since they serve as the basis for generating local policy changes.

IBD is a chronic disease with no identified cure; however, one way to reduce the severity of its symptoms is by diagnosing the disease in its early stages,[26] for which reason improving current capacities for the diagnosis of the disease is fundamental. In turn, the complexity of the disease requires comprehensive and multidisciplinary management to improve the quality of life of patients.[27]

Access to appropriate and effective treatment

IBDs are chronic diseases that currently have no definitive cure. However, once the patient has been diagnosed, there is a wide variety of treatments that will allow them to have adequate control of the symptoms and the consequences of the disease in the long term, as well as improve their quality of life. Choosing a treatment plan for IBD is complex and varies greatly from patient to patient, so the doctor must prescribe the treatments considering an individualized approach, mitigating the symptoms and possible complications derived from it.

For IBD, there are traditional pharmacological and biological treatments and other complementary measures such as specialized nutritional support and surgery. The choice of treatment depends on the type of disease (idiopathic chronic UC or CD), location, degree of inflammatory activity (mild, moderate, or severe), patient age, comorbidities and extraintestinal manifestations, symptoms, and response to previous medications.[57]

Traditional treatments for IBD include synthetic treatments composed mainly of corticosteroids, salicylates, and immunosuppressants, which have agents with anti-inflammatory effects, relieve abdominal pain, and decrease other symptoms such as diarrhea. These treatments can be recommended in the short term (such as corticosteroids, which can have side effects if used for long periods), or in the long term to keep symptoms under control.[51]

On the other hand, biological therapies and the new small molecules that exist today are aimed at reducing intestinal inflammation by targeting specific inflammatory and immune system responses. This class of drugs represents an innovative and effective solution in the treatment of CD and moderate to severe chronic idiopathic UC. Currently used biological agents include anti-TNF (Tumour Necrosis Factor) agents, anti-IL (Inter Leukine), and anti-integrin drugs. These drugs are often administered long term and may be the first line of treatment for patients with moderate to severe disease and/or poor prognostic criteria.[51]

Medications are not always able to control the symptoms of all patients with IBD since, despite complying with the prescribed treatment, some people develop complications that may require

more invasive interventions such as surgery. Although the percentages differ depending on the local context of each country, experts agree that in the region approximately between 5% and 10% of people with idiopathic chronic UC and up to 50% of those with CD will eventually require surgery. Surgery can be associated with increases in patient morbidity and mortality, as well as long-term rates of disease recurrence, with a high impact on the quality of life of patients and health systems. In addition, the treatment plan may be accompanied by other recommendations that contribute to symptom management (antibiotics, antispasmodic agents, analgesics, supportive psychotherapy, and dietary change suggestions).[51] It is essential to keep in mind that the impact of this intervention can be diminished with prompt and early diagnosis and treatment.

Currently, there is a wide variety of drugs that can be prescribed for IBD, standing out as a greater use of traditional treatments that are covered by the public sector in the countries of the region.[57] The use of biological medicines in Latin America occurs in a lower proportion than in other regions, mainly due to the lack of knowledge of doctors regarding their use and monitoring, and the access barriers of the health systems themselves. Many doctors are afraid to recommend the use of biological drugs since they are associated with a potential incidence of adverse events since they precisely modify the response of the immune system. However, these possibilities can be handled by professionals based on a follow-up protocol.[15]

On the other hand, the times and processes involved in the evaluation of health technologies, as well as the inclusion of new medicines in the reimbursement lists, are important barriers for patients to access the most innovative treatments. This situation has led many patients to resort to legal channels to demand and access treatment. In those cases, in which medications are available and covered, however, there are multiple administrative obstacles and bureaucratic procedures that delay the delivery process and discourage both patients from completing the process as well as doctors prescribing such medications.[57]

Another important barrier to continuous access to treatment is related to lack of adherence to it, for which it is imperative that effective communication be maintained between doctor/patient that promotes access and, above all, consistency with treatment. Even when patients manage to receive their treatment, many times they do not continue it. The characteristics of IBD favor low adherence to treatment, given that it has a long evolution with long periods of inactivity, where the patient believe they are free of the disease and take the risk of abandoning the treatment. The need for conventional treatments with a combination of drugs or routes of administration that are not comfortable, such as suppositories, foams, and enemas, can lead to a lower adherence to the treatment. Despite this, adherence to pharmacological treatments in IBD is essential, since in this way the patient has better control and can avoid relapses and complications that affect their personal and professional development, in addition to reducing the number of complementary examinations or hospitalizations.[27,28]

In the section IX- Exhibit we describe many of the barriers found in Latin America region to get access to medication. It is imperative that we detect the difficulties we are facing in the different countries in order to fight for a solution that can result in a better quality of care in those places.

Conclusion

IBD is a chronic disease with a high incidence and prevalence worldwide, with multifactorial causes, and for which there is still no definitive cure. The symptoms of the disease together with the complications that can occur during its development have a strong impact on the lives of patients, both physically, emotionally, socially, and at work. Therefore, achieving early diagnosis is essential to ensure a timely treatment that prevents disease progression, reduces complications, and improves the quality of life of those who suffer from it.

Although there are no rigorous data that account for the real incidence of the disease in the region, it is estimated that the prevalence of IBD has increased progressively in Latin America and the Caribbean, mainly due to environmental and population factors, and this trend will continue in the coming years. Despite this, there is very little knowledge about the disease on the part of the general public and its attention is not among the priorities or health agenda of governments.

The lack of training and awareness about the disease translates into a delay in diagnosis since the

same patient does not associate their symptoms (often intermittent or in cycles) with these conditions, since the symptoms are not very specific and can be associated with other circumstances. This, added to the embarrassment and discomfort that it can generate, makes it difficult and delays consulting doctors for diagnosis and treatment.

The need for knowledge is also observed among health professionals, given that the diagnosis of the disease usually occurs in late stages, due to the non-specificity of its symptoms, but also due to the lack of training of doctors in general for its correct identification. The complexity of the evaluation also lies in the need for different tests to reach a definitive diagnosis, some of which imply procedures that represent significant costs for the health system, which in many cases end up being assumed in some proportion by the patients.

The delays and difficulties in accessing specialists and the absence of a multidisciplinary/comprehensive approach, make it difficult for patients to access appropriate treatment for the disease. The symptoms, characteristics, and possible complications associated with the disease require multidisciplinary work between gastroenterologists and coloproctology surgeons, psychologists, and nutritionists, among others. Communication between health personnel and the patient, as well as adequate monitoring of the latter, is essential to ensure adherence to the treatment. The absence of unified and standardized criteria for the control and management of the disease through clinical treatment guidelines represents a major obstacle to ensuring the correct treatment of IBD.

Finally, the training and updating of the knowledge of health professionals regarding the comprehensive management of the disease, the empowerment, and encouragement of the formation and integration of patient groups, as well as the efforts to address the structural barriers to access that appear in health systems, would favor the right of patients to access the best available treatment.

As a result of this Latin America experts meeting, some important issues were raised and many recommendations were developed in order to increase not only the identification and registry of patients but also to improve the management and offer the best treatment, and therefore to enhance the quality of life of that population. Many obstacles were also detected in different countries from the region and we must work hard to develop tools and documents that can help overcome those barriers.

Recommendations

1	Generate evidence that makes the problem visible and promotes decision-making
○	Strengthen the mechanisms of data collection and processing through local and/or international efforts that allow obtaining quality data and the standardization of information, so that there is more rigorous information on the burden of IBD disease and its impact on society
○	Advocate for the declaration of IBD as a notifiable disease to facilitate the identification and registration of cases at the national level
2	Educate and raise awareness among the population about the disease, its symptoms, and its impact on the quality of life of patients
○	Develop continuous education and awareness campaigns about the disease to combat discrimination, educate the public about signs and symptoms, as well as their impact, complications, and how they can affect the quality of life of patients, highlighting the importance of an early diagnosis time (in the mild stage) and to cope with the shame associated with having it. This will help to empower patients to seek appropriate medical care for the management of IBD and its symptoms and to be diagnosed promptly and appropriately. Use powerful means of communication, such as television, radio, and social networks
○	Promote the development and implementation of education programs about the disease that include patients, family members, and support networks, to strengthen and optimize treatment adherence
3	Strengthen the capacities of the health system to achieve universal access, with an emphasis on achieving unified criteria that promote timely diagnosis and access to treatment

(Continued)

		○ Train health personnel regarding the signs and symptoms of the disease, for its early diagnosis, from a comprehensive perspective ○ Promote greater awareness among specialists in the areas of general medicine, gastroenterology, pathology, coloproctology, surgery, nutrition, dermatology, rheumatology, immunology, pediatric gastroenterology, gynecology, psychiatry, among others ○ Train nurses so that they can collaborate in care and serve as a connection between patients and services, providing adequate information to facilitate access to adequate patient management ○ Promote comprehensive management of the disease, so that patients feel receiving more integrated support, including the psychological factor given the impact that IBD has on the quality of life of patients and their emotional state. Consider creating multidisciplinary teams that include gastroenterologists, colorectal surgeons, radiologists, nutritionists, psychologists, and nurses, among others ○ Promote the prioritization of specialized consultation, understanding that consultation with a multidisciplinary team must have adequate remuneration ○ Promote the development and implementation of evidence-based clinical treatment guidelines at the national level, which encourage interdisciplinary management of the disease and incorporate the indication and use of innovative therapies, as well as the training of physicians in the implementation of these guidelines ○ Generate a Latin American guide for the approach and treatment of IBD, which includes the need to register the disease and consider the barriers of the regional context ○ Promote the creation of networks and the use of telemedicine to help diagnose and recruit patients
4	Promote interaction, collaboration, and participation of all sectors involved in decision-making	○ Strengthen the role, integration, and participation of patient organizations in decision-making as a channel to make visible and create awareness about the unmet needs of patients and propose solutions for their care ○ Generate and multiply spaces for discussion between patients, doctors, providers (both public and private), and decision-makers

Exhibit

Country	Drugs approved by public entities	Local barriers to access
Argentina	Adalimumab Aminosalicylates Azathioprine Certolizumab Cyclosporine Golimumab Infliximab 6-Mercaptopurine Mesalamine Prednisone Sulfasalazine Ustekinumab Vedolizumab	The health system is very fragmented, although most of the population has coverage for biologics.
Brazil	Allopurinol Adalimumab Azathioprine Certolizumab Ciprofloxacin Hydrocortisone Infliximab Mesalamine Methylprednisolone Methotrexate Metronidazole Prednisone Sulfasalazine	Certain biologic treatments are available and covered by the public sector (infliximab and adalimumab), but only when conventional treatments fail (sulfasalazine, mesalamine, azathioprine, and corticosteroids), and not as the first line in moderate to severe cases of the disease. There are difficulties due to shortages in certain regions and the amount of red tape, so it can take up to four months to receive the treatment. Civil organizations have reported that sometimes patients receive incorrect doses of drugs.

(Continued)

Country	Drugs approved by public entities	Local barriers to access
Costa Rica	Azathioprine Ursodeoxycholic Acid Ciprofloxacin Hydrocortisone Mesalamine Metronidazole Prednisone Sulfasalazine	Mesalamine is for the exclusive use of gastroenterologists. Access to basic treatment has improved, but there are occasional shortages. Access to high-cost treatments is more complex since they must go to a Board, then to Hospital Pharmacotherapy. From there they have to go to the Constitutional Chamber and request an appeal for protection. The process can take approximately 3 months.
Mexico	Adalimumab Azathioprine Budesonide Certolizumab Infliximab Mesalamine 6-Mercaptopurine Methotrexate Prednisone Sulfasalazine	The health plan includes basic and generic drugs. To access biological therapy, the process can take more than a year. Civil organizations describe a shortage of medicines in the public health sector, in such a way that Social Security does not consistently deliver medicines to patients. In addition, many of the institutes do not provide medication on an outpatient basis, rather than in the case of hospitalization.
Peru	Azathioprine Balsalazide Budesonide Cyclosporine Infliximab Mesalamine 6-Mercaptopurine Methotrexate Olsalazide Prednisone Sulfasalazine	Biological treatments are not part of the list of required drugs; therefore, it is necessary to request them per patient, which implies many procedures and bureaucratic obstacles.
Dominican Republic	Allopurinol Azathioprine Budesonide Cyclosporine Mercaptopurine Methotrexate Prednisone Sulfasalazine	SISALRIL does not include IBD in its schedule; in fact, there is only one insurer that covers biological drugs. The other affiliates must manage their medications through the High-Cost Program of the Ministry of Public Health.
Uruguay	Adalimumab Infliximab Mesalamine Sulfasalazine	The Technical Advisory Commission for Medicines and Related Products is who approves the protection appeals through which innovative therapies are accessed.
Venezuela	Mesalamine Sulfasalazine	Two years ago, there were two biologics covered by the health plan. Now there are no biologics, only immunomodulators. Social Security offers aminosalicylates, but there are severe shortages.

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Author contributions
Flavio Steinwurz: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Visualization; Writing – review & editing.

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Beatriz Iade Vergara: Data curation; Resources; Validation.

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