

MEDICAL AND SPA TOURISM AND RHEUMATIC DISEASES – CHALLENGES AND FUTURE PERSPECTIVE

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Abstract. *In recent years, the concept of „medical tourism“ has become popular, due to the increasing interest of governments in search of new sectors for sustainable growth. This trend guarantees an improvement not only of the services offered, but also a significant boost in the socio-economic and political relations between the individual countries. This paper presents a historical overview, challenges and future perspectives for the development of the “medical and SPA” tourism sector in the coming years. By providing critical evaluation, this research identified 3109 publications, of which we selected only 11 that met the additional criterion of association with rheumatic and musculoskeletal diseases. In light of existing literature, the number of publications showing the contribution of SPA and medical tourism, as well as physical therapy, in the treatment of rheumatic diseases has significantly increased. The presence of a great number of mineral springs on the territory of Bulgaria and Romania makes them competitive with the already famous resorts in Germany, Austria and Czech Republic. The present research focus on the current state of medical and SPA tourism is based on published scholarly articles and data obtained from different sources as well as the websites of the Ministry of tourism of Bulgaria and websites of the resorts.*

Key words: *medical tourism, SPA, wellness, rheumatic diseases, treatment*

INTRODUCTION

Until the end of the XXth century, the term „medical tourism“ represented patients migrating to other countries in search of health services unavailable locally. With the ease of travel due to globalization, the demand for medical services in other countries is increasing. The concept of „patients without borders“ is also gaining more and more popularity, which in addition to reflecting current treatment options around the world, also shows the desire of patients for faster access to high-quality medical care. In a number of countries, access to a specialist is significantly limited due to long waiting times for a primary examination [1, 2, 3].

Medical tourism has been relevant since ancient times, when patients were taking designated trips to various thermal springs designated as SPA resorts [3, 4, 5, 6]. This trend has undergone a dynamic development over the years, but has retained at its core the original idea, namely a journey in search of a cure and better health for the patient. Despite the changes in the perception of medical tourism in the last 20 years, there is a precise definition of this concept. In 1973, the International Union of Tourist Organizations (IUTO), the predecessor of the UN World Tourism Organization, defined the term „health tourism“ as „the provision of health facilities using the country's natural resources, in particular mineral water and climate“ [7, 8, 9]. Over the last

20 years the countries of the Balkan region, including Bulgaria, have several achievements, but at the same time a number of difficulties regarding promotion of SPA tourism. We, as well as the neighboring countries (including Romania), have gone through decades of developing the SPA tourism segment.

Medical tourism in the country, the main emphasis being on SPA treatment and visits to thermal springs, has experienced several periods of development – the Roman period, represented by the Roman Baths in the city of Varna with an area of about 7000 m² (II-III centuries), the Austrian period (XVIII-XIX centuries), the royal period (the beginning of the XXth century), the communist period and the post-communist period [10, 11]. The consequences of the communist regime can still be seen today, despite the subsequent dynamic development of the private sector and the construction of facilities guaranteeing very good conditions for those undergoing treatment. The health insurance system plays a major role in rehabilitation and physiotherapy procedures. The insurance system is a factor in both – Bulgarian and Romanian SPA tourism [10, 11, 12], as costs for SPA medical services related to health recovery are reimbursed by more than 70% by the National Health Insurance Fund [13, 14]. Despite the competitive advantages of resorts in Western Europe (in particular resorts such as Karlovy Vary), attracting more foreign tourists nationally requires constant efforts in the sphere of non-adver-

tising and a focus on the medical qualification of specialists available in the short term.

This publication aims to present a historical overview of the periods of development of medical tourism – with focus on the Bulgarian case, as well as to summarize the current trends and their prospects for development in the coming years.

MATERIALS AND METHODS

We searched MEDLINE, Scopus and PubMed on 03/16/2023 for articles in English. We chose the term „Medical tourism“ as the main keywords in the indicated databases. We also used the keyword combination „rheumatology“ and „rheumatic diseases“. The search identified 3109 publications for the period 1990-2023. Most of them were excluded, due to repetition or lack of correlation with rheumatic diseases, or language of publication other than English. Of the 470 scientific publications found that meet the set criterion „medical tourism“, only 17 meet the additional criterion of connection with rheumatic and musculoskeletal diseases. The 17 English-language

publications initially identified were systematic reviews, clinical cases, original articles and correspondence reviewed in full text. After selecting the publications for eligibility, based on the aforementioned criteria, 11 articles were approved (Fig. 1).

HISTORICAL OVERVIEW

Historically, healing temples with mineral springs have been well-known in Greece. The temple of the God of medicine Asclepius, as well as the sanctuary of Zeus on Olympus and the temple at Delphi, gathered many patients seeking healing [1, 15]. Water is the main resource for many tourist activities, such as water sports, sunbathing and health tourism [10]. Since Roman times, numerous mineral baths have been known on the territory of the Republic of Bulgaria, which became popular owing to their healing springs.

One of the most significant sights, part of the cultural heritage of the city of Varna, are the Roman Baths, built as early as the I-IV century AD. They are from the so-called „small imperial type“ and historical sources indicate that their construction dates back to

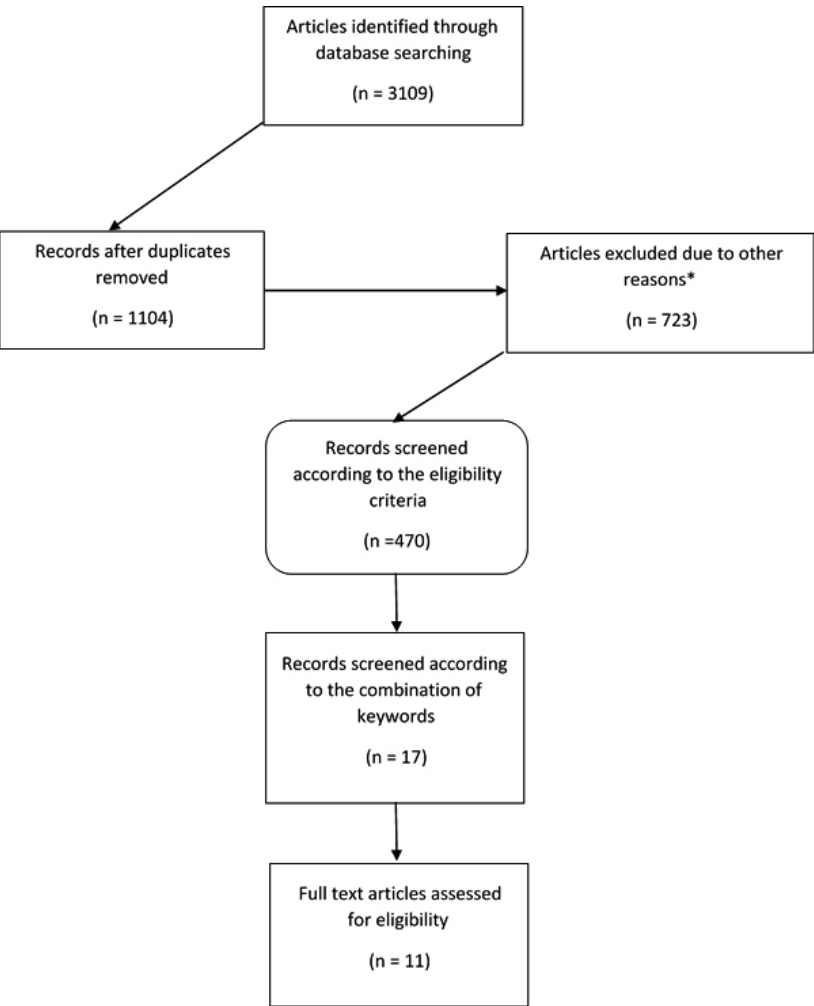


Fig. 1. Selection of publications based on inclusion and exclusion criteria

the end of the IInd century AD. To this day, it remains the largest Roman bath discovered on the Balkan Peninsula – with an area of 7,000 square meters. It is the fourth largest in Europe – after the Baths of Caracalla and Diocletian in Rome and in Trevira (Trier, Germany). It was used until the end of the III century [14]. Historical data gives testament to the conduct of SPA procedures in ancient times. Other rooms with different purposes were discovered – a room for dousing with cool water (frigidarium), for dousing with warm water (tepidarium) and for dousing with hot water (caldarium) [14]. Each one of these procedures is used both in healthy people – as balneo-procedures for the prophylaxis of the musculoskeletal system, as well as in people, already diagnosed with diseases of the musculoskeletal system.

The healing properties of mineral waters were widely known in ancient times. The city of Hisar is another notable location on the territory of the Republic of Bulgaria, known for the presence of 22 mineral springs, actively visited since ancient times. The first settlers on these lands were the Thracians, but subsequently the city was settled by the Romans, who transformed the lands. The ruins from the Roman period (including Roman baths) have been preserved to this day in the center of the city. The first documented name of the city was Augusta, in honor of the emperor Augustus, but at a later stage the name Diocletianopol was imposed – after the emperor Diocletian. The reason for this change was the arrival of the emperor in the city in 293 AD, because of the fame of the healing mineral springs [16]. Due to the favorable climatic conditions and the presence of SPA resorts,

Bulgaria is a destination suitable for the development of medical tourism. Mineral waters contain hydrocarbonate, sulfate, sodium, fluoride, silicon, radon and hydrosulfide compounds. The waters of the mineral springs in the city of Hisar are suitable for drinking, inhalation and for external medicinal use. They provide relief for many medical conditions such as urological problems, gastrointestinal, musculoskeletal, peripheral nervous system disorders [16].

The capital of Bulgaria – the city of Sofia, is one of the destinations known since ancient times for its mineral springs. Its key location at the crossroads, as well as the different mineral content of each spring, are the reason for its uniqueness. Known as Serdica, today's capital was the residence of the Roman emperor Constantine the Great (306-337). Historical sources testify that he himself said „Serdica is my Rome“ [17].

Thanks to the natural features and the urbanization of the city, in 1913 The Sofia Central Mineral Baths opened doors to the public and functioned until 1986. In 2015, they acquired the status of a museum [18].

DEVELOPMENT OF MEDICAL TOURISM

On the territory of the Republic of Bulgaria there are many cities known for their mineral springs – Sandanski, Velingrad, Pavel Banya, Devin, Varshets, Sapareva Banya, Pomorie, the village of Banya (Table 1). Each one of them provide excellent conditions for the realization of medical and SPA tourism, and in recent years there has been a significant increase in the number of tourists who visited these resorts for medical and SPA procedures (Fig. 2).

Table 1. The information about the medical SPA according to the published data in the field

Medical SPA	Characteristics of the water	Rheumatic and other disease	Reference
Velingrad	25°C-97.3°C	locomotor diseases (rheumatism), inflammatory joint diseases; radiculopathy, neuroses, fractures, trauma and endocrine diseases. With controlled drinking, it affects bile and stomach disorders (ulcer, colitis, gastritis)	[51] https://www.tourism.government.bg/bg/SPA-destinations/6498/6554
Devin	42°C	inflammatory joint diseases: rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, radiculopathies, neuroses, gout, diabete type I and II, dermatitis	[52] https://www.tourism.government.bg/bg/SPA-destinations/6498/6568
Pavel Banya	61°C	paresis, paralysis, osteoarthritis, enthesitis, epicondylitis, rejuvenation of the skin	[53] https://www.tourism.government.bg/bg/SPA-destinations/6499/6515
Sandanski	80°C	osteoarthritis, periarthritis, enthesitis, inflammatory joint diseases (rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis – in remission)	[54] https://www.tourism.government.bg/bg/SPA-destinations/6484/6492
St. Constantin and Elena	46°C	inflammatory joint diseases: rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, radiculopathies, neuroses, gout, diabete type I and II, dermatitis, cardio-vascular diseases; respiratory diseases	[55] https://www.tourism.government.bg/bg/SPA-destinations/6458/6466
Banya	42°C	osteoarthritis, discopathy, bursitis, periarthritis, radiculopathies, neuroses, gout, diabete type I and II, dermatitis	[56] https://www.tourism.government.bg/bg/SPA-destinations/6499/6509
Sapareva Banya	103°C	osteoarthritis, discopathy, bursitis, periarthritis, radiculopathies, neuroses, gout, diabete type I and II, dermatitis	[57] https://www.tourism.government.bg/bg/SPA-destinations/6473/6482
Hisar	45°C–52°C	kidney and urological diseases, diseases of the gastrointestinal tract and hepatobiliary tract, chronic pancreatitis, diabetes type I and II, obesity, gout, osteoarthritis; locomotor diseases	[58] https://www.tourism.government.bg/bg/SPA-destinations/6499/6512

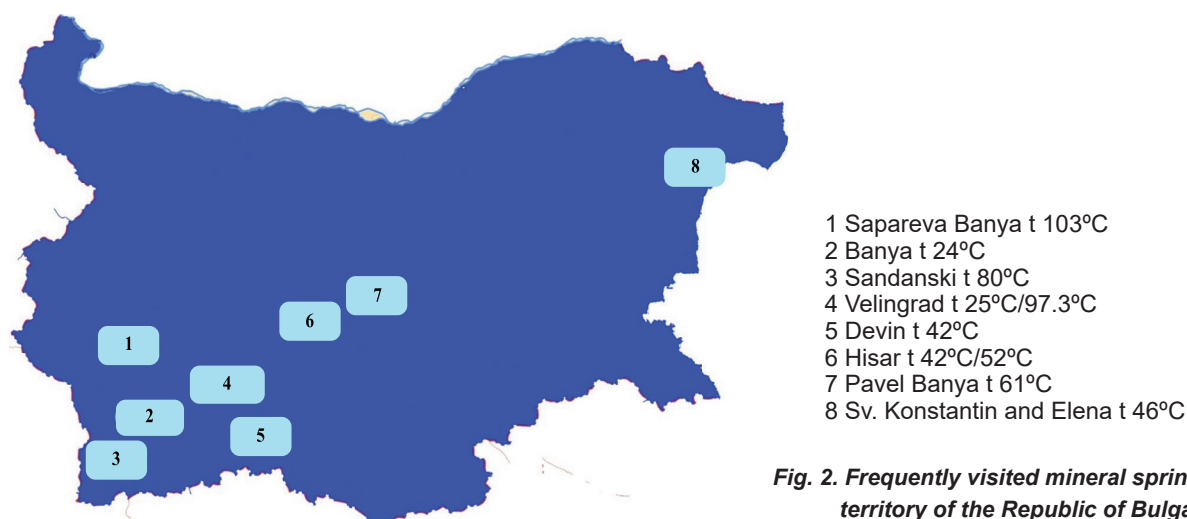


Fig. 2. Frequently visited mineral springs on the territory of the Republic of Bulgaria

In 2012-2014, a framework model WelDest was created, a research project funded by the European Commission (Tuominen, Saari, & Binder, 2017, p. 289), which defines a health tourism destination as „an area chosen by customers (guests, with preventive or curative motives), as a travel destination to improve their health status and/or well-being, according to the concept of forms of health tourism developed by Smith and co-authors [19, 20]. Currently, 28 countries in the Americas, Europe and Asia offer medical services to the international market [1, 21]. More than 400 medical facilities in the mentioned continents are accredited by the Joint Commission International (JCI), with over 12 million medical tourists registered with this number showing a tendency towards increasing in recent years [21]. The number of traveling patients in search of a cure or relief has been increasing, not only at the expense of medical procedures, but also for conducting SPA therapies, which are mainly financed with personal funds.

The operation of European medical SPA resorts in the XX century was based on the public financial system [22, 23]. On one hand, the reduction of subsidies for balneo-sanatorium treatment, as well as medical SPA resorts in many European countries since the 1990s, and on the other – the desire for a healthier life, have led to a change in the proportions of non-commercial (i.e. financed by the public insurer) and commercial (i.e. self-financed) patient accommodations [22, 23, 24]. This trend is observed in a number of countries – Poland, Croatia, Serbia and Romania [11, 23, 24, 25, 26, 27, 28, 29]. Due to the imposed limitations, medical tourism in different countries is aimed at specific procedures. The policy in Romania and Poland emphasizes the development of SPA tourism, through the wealth of various miner-

al springs [11, 23]. In comparison, Germany, which is also known for its medical SPA services, has managed to build a clear profile of each individual resort to attract a specific segment of tourists [30, 31].

DISCUSSION

In Bulgaria, as well as in Romania, there is no narrow differentiation of SPA resorts. The presence of many mineral springs with different mineral composition is a favorable factor for the treatment and prevention of a wide range of diseases [14]. Medical tourism for the treatment and prevention of complications from rheumatic diseases is still underdeveloped at an international level. However, at local level, there is an increase in the number of patients undergoing balneo-sanatorium treatment and different SPA procedures, traveling to different cities in Bulgaria. The largest number of patients with various degenerative diseases of the type of osteoarthritis and damage to the intervertebral discs. Apart from them, patients with inflammatory joint diseases such as ankylosing spondylitis, rheumatoid arthritis and psoriatic arthritis also choose specialized rehabilitation hospitals and SPA hotels in Pavel Banya, Banya Karlovska, Velingrad and Hisar.

In the last five years, a new trend has emerged, namely medical tourism for the purpose of consultation with a specialist (rheumatologist), due to the long waiting period for consultation with one in other European countries (on average about 2-3 months). Widdiefield et al reported that the average wait time from referral to rheumatologist consultation in Canada was 74 days (range 27 to 101 days) or 66 days (range 18-84) days for systemic inflammatory rheumatic diseases [32]. Fuchs and colleagues confirm

this trend in Germany and publish results showing that median time from the first symptom onset to rheumatologist appointment was 30 weeks [33]. The long waiting period forces patients to look for options in other countries. In Bulgaria, patients most often come for consultation with a rheumatologist from the neighboring Republic of Macedonia and Serbia. The trend is mainly for Bulgarian citizens who left the country and live abroad or foreigners who had contact with Bulgaria and were satisfied with the medical health care. At the moment, there is no accurate information about the number of patients, due to the lack of an unified informational system, including all medical facilities, but according to the opinion of specialists in the field, the number of patients has been increasing in recent years. In 2020, the World Tourism Organization (UNWTO) published new data, according to which, in the period 2009-2018, trips related to visiting relatives, friends, medical treatment and religious visits increased from 252.32 million people to 377.67 million people [34, 35]. In addition to the reasons listed, an increasing percentage of young people travel in search of a healthy lifestyle and fitness regimes [36].

At the local level, there is also a tendency for „domestic“ medical tourism, which is characterized by consultations of patients from smaller settlements to larger regional centers or in particular – Sofia, Plovdiv, Varna, Burgas and Pleven. The main center is the city of Sofia, as the reason for this is a larger number of hospitals, more easily accessible and high-quality medical care, as well as a larger number of specialists and experts in the specific field. For patients with rheumatic diseases, this trend has continued over the past 10 years or more. However, Bulgaria is currently an unpopular destination for medical tourism and treatment of rheumatic diseases. This is one of the main challenges facing the market of medical services in the field of rheumatology.

The growth of the health services market increases the economic share of the health sector in national economy of a country [35, 37-39]. Usually, trips for a consultation with a specialist or a medical procedure are in the company of a spouse or relative, which leads to an increase in income not only from medical services. This is one of the reasons for the growth of both the medical tourism sector and other economic sectors at the same time [35, 37]. Many other factors influence the development of medical and SPA tourism and the economic growth of the country. Vovk et al. emphasizes the importance of social factors, commercial factors and qualitative factors [35]. Additionally, personal factors have

a very important role – the need to maintain confidentiality, previous personal experience and the bias of the patient's view [35]. One of the most important social factors is the coverage of medical services by the National health insurance system of each country. In some cases, the absence of health insurance for certain diseases, as well as insufficiently qualified specialists in the field, are among the reasons for the search for medical services around the world and the development of medical tourism [35, 40-43].

In order to determine the most appropriate destinations, several organizations were founded. In 2007, The Medical Tourism Association (MTA) was established to raise awareness for medical travel while driving the adoption of best practices in the industry [44]. Every year MTA helped healthcare providers to expand across the globe and offer patients detailed information about services, procedures and specialists. The organization created the Medical Tourism Index (MTI), which evaluates environmental factors, the qualification of medical professionals, the satisfaction of patients with the quality of medical care and services [35, 44]. According to the latest reports, Bulgaria is included only with the opportunity for phrenic nerve surgery, but from the mentioned future initiatives it is visible that there are steps ahead in expanding the possibilities of the services offered [44]. Overall, the total MTI score ranks the most visited countries for medical tourism. Based on the issue released on July 2020 – the top destination was Canada (MTI score: 76.47), followed by Singapore (MTI score: 76.43), Japan (MTI score: 74.23), Spain (MTI score: 72.93), United Kingdom (MTI score: 71.92), Dubai (MTI score: 71.85), Costa Rica (MTI score: 71.73), Israel (MTI score: 70.78), Abu Dhabi (MTI score: 70.26), India (MTI score: 69.80). [45]. The total number of ranked destinations is 46, and unfortunately, at the moment, the Republic of Bulgaria does not appear among them. At the same time, there is no direct correlation between the economic development of countries (their gross domestic product – GDP) and the Medical Tourism Index.

In addition to the information given by the MTI, another index was created to rank emerging economies. The Travel and Tourism Competitiveness report was first published in 2007. It ranks over 130 countries according to the Travel and Tourism Competitiveness Index (TTCI). The overall index is made of three main subindexes: (1) regulatory framework; (2) business environment and infrastructure; and (3) human, cultural, and natural resources. According to the definition given by Martín, Mendoza & Román, (2017) the aim of the TTCI is to analyse and com-

pare the factors and policies that contribute to the attractiveness of the Travel and Tourism sector's development and expansion in numerous countries. [46,47]. Unfortunately, it does not provide a real picture of medical tourism as a separate category. The latest report published in 2021 ranks on first place Japan with TTCI score: 5.2, followed by USA (TTCI score: 5.2), Spain (TTCI score: 5.2), France (TTCI score: 5.1), Germany (TTCI score: 5.1), Switzerland (TTCI score: 5.0), Australia (TTCI score: 5.0), United Kingdom (TTCI score: 5.0), Singapore (TTCI score: 5.0) and Italy (TTCI score: 4.0) [48]. It is noteworthy that the TTCI ranking correlates with MTI index scores, but does not necessarily correlate with GDP of the country [35].

FUTURE PERSPECTIVES

A significant step forward in the development of Bulgarian medical tourism is the historical date of September 19, 2019. Then the association of mandatory Health Insurance Funds and Insurance Funds in Germany, the German-Bulgarian Chamber of Commerce and Industry and the Bulgarian Union of Balneology and SPA Tourism signed an agreement for the inclusion of Bulgaria in the list of countries in which health insurance funds reimburse the costs of balneotherapy and physiotherapy to their member-clients. Their number is about 73 million. This action has an extremely serious impact on the development of medical and SPA tourism in Bulgaria and increases investments in this sector many times over. According to BUBSPA (Bulgarin Union on Balneology and SPA Tourism) and the German health insurance funds, every euro invested in prevention saves more than 7 euros in treatment [49].

In 2022 a memorandum was signed between the Ministry of Tourism of Bulgaria and the German-Bulgarian Chamber of Industry and Commerce, which significantly expands the spheres of activity and foresees large-scale investments in the advertising of medical and SPA tourism on the German market. The actions undertaken in this direction provide a basis for the development of medical tourism in Bulgaria, in particular – the treatment of degenerative and inflammatory joint diseases [50]. However, one of the biggest challenges remains the small advertising budget in comparison to other countries, as well as the significant competition in their face. Germany and Austria have traditions in medical and SPA tourism, which will place quite

high demands on Bulgarian resorts and the services they offer. One of the forthcoming challenges is to increase the advertising budget and ensure a widely accessible campaign that attracts tourists from all over the world.

Unlike medical tourism in the field of rheumatic diseases, other medical services are permanently imposed on the international market. Although the share of medical tourism is less than 5%, the largest share is occupied by dental services and in vitro procedures. Bulgaria is home to the largest private clinic for dental treatment in Europe. Dentaprime is the winner of the Guinness Award for the largest letter-shaped building in the world. The building houses 71 treatment rooms and the clinic receives over 10,000+ patients annually from Germany, Austria, Switzerland, Great Britain and China. The presence of such a large number of patients throughout the year greatly contributes to the elimination of the seasonality of tourism in the region. Combined with the available mineral springs (several in number with a water temperature slightly above 37 degrees), the k.k. Sv. Sv. Constantine and Elena is becoming an attractive place for tourists from all over the world with its wide palette of offered medical services and its high-class accommodation base [50].

In contrast to the published articles in the field of wellness and SPA tourism, at the moment there is insufficient data on the development of medical tourism and the treatment of inflammatory joint diseases. One of the advantages of this systematic review is the detailed assessment of the state, challenges and future perspective of medical tourism and rheumatic diseases in Bulgaria and the region based on the published data. The second advantage is that the detailed analysis of the data in the literature was performed simultaneously by an expert in the field of tourism, which guarantees a precise evaluation in real time. However, there are some limitations to this systematic review. One of them is the small number of articles which concern medical tourism and rheumatic disease. The second one is the focus on its development in the region.

CONCLUSIONS

The development of international medical and SPA tourism in Bulgaria will guarantee development not only in the field of healthcare, but also in socio-economic and political relations between individual countries.

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