MEDICAL TOURISM IN SERBIAN SPAS – ARE WE COMPETITIVE?

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Abstract

Medical tourism is gaining increasing importance in the world and can represent a significant lever for regional development. Serbia is rich in thermal springs that have spa facilities. However, many spas have been devastated in the last twenty years. In this paper, we have analyzed modern tourist medical services in specialized hospitals in Serbian spas to determine whether the offer is in line with world trends. The results of the analysis showed that the services are still conventional, related to rehabilitation and diagnostics. Only a few leading spas introduce modern, non-invasive medical treatments that are becoming a source of competitive advantage.

Key Words: *medical tourism, spa, modern medical spa services, Serbia*
JEL classification: *L83, Z32, I31*

Introduction

Tourism is one of the fastest-growing economic and social activities. Data from the United Nations World Tourism Organization - UNVTO showed that from the 50s in the 20th century, the number of international tourist trips increased from 25 million to 1.4 billion (Roser, 2020). Accordingly, in the 68 years (1950-2018), international tourist traffic has increased 56 times. The UNWTO (2019) states that the tourism growth rate over the ten years (2008-2018) was 4%.

The importance of the tourism industry is also reflected in economic parameters. As reported by the WTTC (World Travel & Tourism Council,

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2019), in the period 2014-2018 tourism accounted for 10.4% of global GDP and 10% of the world's employees were employed in this industry, while one-fifth of all jobs was created in tourism. Tourism is also a significant industry for the Serbian economy, since the direct contribution to the GDP is 2.3%, and its total contribution to GDP is 6.7%. The projected growth rate is 2.7% over the next few years, and the share of GDP is expected to be 8%. Almost 5% of jobs in Serbia are in tourism and activities that support the tourist offer, which makes 96,500 employees (WTTC, 2019).

According to the data from the Statistical Office of the Republic of Serbia (2019), in the period 2010-2019, Serbia recorded positive growth rates of tourist arrivals and overnight stays. Tourism demand was unstable, primarily as a result of the decline in domestic guests, which is characteristic for the period 2010-2014. Since 2015, there has been a period of strong growth. In 2019, Serbia recorded 3.7 million arrivals and 10 million overnight stays, with growth rates in the last ten years is 6.3% and 4.2%, respectively. Compared to 2018, 7% more arrivals and 7.3% overnight stays were registered at the end of last year. Another desirable feature of tourism demand is the increase in the share of foreign tourists. That share was 21% in 2009 and almost 50% in 2019. However, despite the exceptionally favourable trend, Serbia ranks 83rd (out of 140 countries) measured by the Global Travel & Tourism Competitiveness Index 2019 Overall Rankings with a score of 3.6 and - which is 5.7% difference from the global average. The value of the index indicates that Serbia still has space to improve its competitive position in global tourism (Bradić-Martinović & Miletić, 2018).

Spas represent a significant dimension of tourism in Serbia. In 2019, one-third of the total tourism overnights were recorded in spas. In the last five years, the rate of increase in the number of arrivals in spas has been 11.6%, while the number of overnights has increased by 8.5%. Despite the substantial share of spa tourism and the encouraging growth, the Tourism Development Strategy of the Republic of Serbia (2016-2025) states that "*no progress nor significant investments have been made in improving the quality of tourism products, especially in health and wellness tourism in spas*" despite the fact that our country has "*50 spas and climatic places and over 1,000 springs, of which about 500 with cold and warm mineral water, as well as the abundance of natural mineral gases and medicinal mud, has enormous potential in the health/wellness segment*". The same document concluded that spa/wellness and health tourism in spas are strategic tourism markets for the tourist economy of the Republic of Serbia. Additionally,

the results of their analysis showed that the causes for the current state include outdated and inadequate tourism management model, marketing and way of promoting destinations (changing focus from product to guest experience), as well as the lack of public and private sector collaboration in product development, establishing a complete value chain and marketing activities. A particular limitation is also the insufficient quality of the workforce in tourism and the hotel industry (Chroneos Krasavac et al., 2018).

The importance of spas and spa tourism can also be seen through the prism of regional development. Despite the lack of a new regional development strategy for Serbia, we will rely on the previous version, which covered the period 2005-2012. It states that the local (regional) development goals are an increase in regional competitiveness, reduction of regional inequalities and poverty and halting the negative demographic trends. The same document points out that "*the development priority of tourism should be aimed at increasing the volume of tourist traffic through a greater supply of quantitative (greater use of existing and construction of new, modern and diverse accommodation capacities) and qualitative tourism factors (further development of different types of tourism through more selective affirmation of natural, anthropogenic and cultural content), which will contribute to greater competitiveness of the region on the domestic, but also wider, European market*" and thus "*the development of tourism in cities, spas and mountains, as well as rural tourism will influence the most rational increase of the competitiveness of the Republic of Serbia as a country, but also regionally*" (2007).

Based on the presented figures and strategic documents, we have assumed that the development of spa tourism can significantly contribute to the further development of tourism in Serbia (Bradić-Martinović & Miletić, 2017). We believe that investing in the modernization of medical services in Serbian spas can provide an additional impetus to the development of domestic and spa tourism, within the framework of balanced regional development. Therefore, the paper aims to determine the current state in Serbian spas regarding modern tourism medical services, as a tourism product.

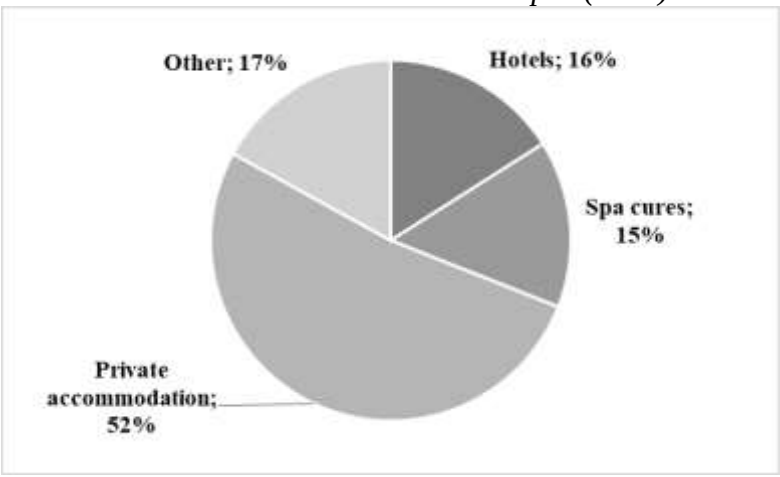
Development of spas and spa tourism in Serbia

Spa tourism in Serbia has a long tradition and tourist offers started to grow in the late 19th and early 20th century, but their status has been diverse, and

still is (Ljubisavljević & Radosavljević, 2018). During that period, guests began to visit spas such as Banja Koviljača, Sokobanja, and Vrnjačka Banja, as well as Vranjska Banja, Ribarska Banja, and Bukovička Banja, Aranđelovac. These spas combine the availability of thermal and mineral resources - an appropriate source for the development of medical tourism.

In the second half of the twentieth century, the State recognized the potential of thermal spas. Consequently, in 20 Serbian thermal spas, specialized rehabilitation hospitals (RH-centers) have been established, almost all of which are still operating. These hospitals have the dominant support of the Serbian health system through the transfer system of the Republic Fund for Health Insurance (RFZO). The costs of accommodation/medical treatment of domestic guests are covered by the RFZO as directed by a doctor, or after treatment at one of the regular hospitals in the conventional health care system.

Figure 1: *Accommodation structure in Serbian spas (2018)*



Source: *Statistical Office of Republic of Serbia (2019)*

Serbian Spas Market indicators - Statistical Office collects and publishes data for 20 spas, and these spas are officially classified as tourist resorts, as presented in Table 1. Based on these data, RH-centers offer (measured by the number of beds) 16% of all spa's accommodation, additional to Private (52%) and Hotel accommodation – Hotels and Garni hotels (18%) (Statistical Office of RS, 2019). Other capacities, with the minimum contribution in the total offer, are Overnights, Apartments, Climatic cures and Resort hostels. Except for several spa facilities based on destination spa principles, almost all of Serbia's spa objects are outdated, below

international quality standards, waiting for further steps in the context of privatization. Even in the current circumstances, there is a space for significant progress if appropriate changes in management occur, and the principles of responsible and professional management are introduced.

In the past five years, total spa accommodation increased by 2.0% (CAGR), but from 2017 to 2018 the total number of beds decreased by almost 1,000 (Table 1). The situation is much less favourable if we observe spas individually. In Ribarska Banja and Banja Kanjiža we have exceptionally high growth as a result of their modest starting position. Still, we have negative trends in Mataruška Banja, Gamzigradska Banja, and Vranjska Banja.

Table 1: *Distribution of beds in Serbian spas (2014-2018)*

Spas	**2014**	**2015**	**2016**	**2017**	**2018**	**2014/18**
Bukovička Banja	1,081	937	1,219	1,135	1,158	1.74%
Banja Vrujci	905	731	731	2794	942	1.01%
Vranjska Banja	205	236	184	908	141	-8.93%
Vrnjačka Banja	4,144	4,232	4,342	4,396	4,615	2.73%
Gamzigradska Banja	358	212	389	237	237	-9.80%
Gornja Trepča	2,591	2,600	2,614	2,528	2,528	-0.61%
Banja Kanjiža	460	456	516	456	798	**14.77%**
Banja Koviljača	994	1,197	1,142	1,123	1,081	2.12%
Mataruška Banja	548	917	454	230	200	-22.27%
Selters Banja	437	437	437	437	437	0.00%
Niška Banja	796	796	796	796	796	0.00%
Ribarska Banja	247	247	247	567	587	**24.16%**
Sijarinska Banja	908	937	935	949	1,109	5.13%
Sokobanja	6,194	5,972	6,238	5,958	6,923	2.82%
Total	**19,868**	**19,907**	**20,244**	**22,514**	**21,552**	**2.05%**

Source: *Statistical Yearbook of the Republic of Serbia, 2015-2019*

On the demand side, in the period 2014-2019 total number of arrivals in Serbian spas increased by 11.6%, and the total number of overnights by 8.5%. Based on the data presented in Table 2, we can conclude that the trends are different and in some cases, spas recorded extremely high growth rates, for instance, Sokobanja (24.0%) and Banja Vrdnik (14.6%). There are also reverse examples - Mataruška Banja (-32.4%), Banja Rusanda (-10.5%) and Vranjska Banja (-7.1%) with high negative growth rates.

Table 2: *Arrivals in Serbian spas (2014-2019)*

Spas	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2014/18**
Vrnjačka Banja	146,756	175,153	202,820	213,194	247,709	283,491	**14.0%**
Sokobanja	42,438	41,676	45,918	53,915	101,167	124,877	**24.0%**
Bukovička Banja	28,102	29,145	34,564	37,152	33,591	32,885	3.1%
Mataruška Banja	2,792	1,173	464	514	426	394	-32.4%
Banja Koviljača	15,147	15,094	23,026	24,028	24,156	24,322	9.9%
Prolom Banja	11,731	14,363	14,078	15,862	17,718	18,227	9.2%
Gornja Trepča	9,913	9,718	11,180	12,120	11,621	12,269	4.3%
Vranjska Banja	4,413	2,523	2,143	2,336	2,284	3,050	-7.1%
Banja Kanjiža	11,662	13,579	11,560	12,073	12,312	12,892	2.0%
Banja Junaković	6,744	7,530	7,007	8,502	10,336	10,630	9.5%
Banja Vrdnik	14,481	18,094	23,577	28,798	27,814	28,700	**14.6%**
Banja Rusanda	2,299	2,093	1,900	1,294	1,266	1,315	-10.5%
Banja Palić	22,030	26,656	28,725	31,879	30,218	33,668	8.8%
Selters Banja	6,973	5,910	4,924	5,315	5,589	5,612	-4.2%
Lukovska Banja	11,152	12,616	13,344	13,808	13,753	12,877	2.9%
Gamzigradska Banja	3,105	2,255	1,750	1,654	1,881	2,072	-7.7%
Ribarska Banja	7,419	7,538	7,749	10,680	10,239	9,810	5.7%
Sijarinska Banja	5,721	5,802	6,060	7,681	7,998	8,742	8.8%
Banja Vrujci	7,688	9,656	10,162	10,972	10,889	10,542	6.5%
Niška Banja	4,916	4,747	5,059	5,282	4,454	3,728	-5.3%
Total	**386,345**	**427,456**	**477,102**	**519,151**	**596,884**	**670,044**	**11.6%**

Source: *Statistical Yearbook of the Republic of Serbia, 2014-2019*

It is also essential to have an insight into the ratio of overnight stays for domestic and foreign tourists. For all spas, this ratio has been slightly improved. In 2014, 11% of guests were foreigners, and in 2019 Serbian spas hosted 13% from abroad. In 30% spas, the share of foreign guests decreased. Five spas recorded growth above average, which is driven by Banja Palić, Banja Koviljača, and Vrnjačka Banja. In all Serbian spas, the average length of stay dropped slightly in the period 2014-2019, from 4.8 to 4.2 days.

We can conclude that the trends of tourist supply and demand in Serbian spas in the period 2014-2019 are improving on average, but with significant positive and negative deviations.

Table 3: *Structure of overnights in Serbian spas in% (2014-2019)*[1]

Spas	2014		2015		2016		2017		2018		2019		Dif I[2]
	D	I	D	I	D	I	D	I	D	I	D	I	
Vrnjačka Banja	87	13	85	15	85	15	86	14	85	15	85	**15**	1
Sokobanja	95	5	94	6	97	3	97	3	93	7	92	**8**	3
Bukovička Banja	81	19	82	18	83	17	82	18	82	18	84	16	-2
Mataruška Banja	97	3	99	1	93	7	94	6	95	5	96	**4**	1
Banja Koviljača	86	14	81	19	78	22	78	22	78	22	77	**23**	**10**
Prolom Banja	88	12	88	12	90	10	89	11	88	12	87	**13**	1
Gornja Trepča	82	18	83	17	86	14	85	15	85	15	85	15	-2
Vranjska Banja	95	5	96	4	96	4	95	5	96	4	95	5	0
Banja Kanjiža	73	27	80	20	83	17	76	24	78	22	80	20	-7
Banja Junaković	91	9	88	12	90	10	89	11	89	11	89	**11**	1
Banja Vrdnik	89	11	89	11	92	8	88	12	89	11	88	**12**	1
Banja Rusanda	97	3	96	4	96	4	96	4	95	5	92	**8**	5
Banja Palić	70	30	56	44	64	36	64	36	64	36	67	**33**	2
Selters Banja	99	1	99	1	99	1	98	2	99	1	98	**2**	1
Lukovska Banja	95	5	93	7	94	6	93	7	92	8	93	**7**	2
Gamzigradska Banja	99	1	99	1	98	2	98	2	98	2	75	**25**	**24**
Ribarska Banja	93	7	94	6	95	5	95	5	97	3	97	3	-4
Sijarinska Banja	96	4	98	2	98	2	98	2	97	3	98	2	-2
Banja Vrujci	91	9	93	7	95	5	94	6	95	5	95	5	-4
Niška Banja	88	12	87	13	86	14	87	13	87	13	80	**20**	8
Total	**89**	**11**	**88**	**12**	**88**	**12**	**88**	**12**	**88**	**12**	**87**	**13**	2

[1] Agenda: D – domestic; I – international

[2] Note: The column represents the difference between the share of foreign guests in 2019 and 2014

Source: *Statistical Yearbook of the Republic of Serbia, 2014-2019*

Health, medical, wellness and spa tourism

It is challenging to determine the exact definition of medical tourism due to significant overlaps in the literature in terms of health, medical, and wellness tourism. Health tourism is an umbrella term containing a health and tourism component (Hofer et al., 2012). One of the first definitions was given by the World Tourism Organization (WTO) – "*Health tourism is associated with travel to health spas or resort destinations where the primary purpose is to improve the traveler's physical well-being through a regimen of physical exercise and therapy, dietary control, and medical services relevant to health maintenance*" (Gee & Fayos-Sola, 1997). Erfurt-Cooper & Cooper (2009) consider that any trip that makes us healthier can

be referred to as health tourism. Goeldner (1989) makes the term clearer, starting with the three components of health tourism - staying (at least one night) outside the home, having health as a travel motive, and incorporate some form of leisure.

Many authors view health and medical tourism as synonyms, while Connell (2011) proposes that these terms can also be considered from the standpoint of passive/active experience. In essence, medical tourism involves treating illness, while health tourism also includes wellness techniques such as relaxation, massages, yoga, stay in thermal pools, saunas, Turkish baths, salt rooms, etc. Spasojević et al. (2004) distinguish three types of health/medical tourism - health resorts (involves intervention and recovery), curative (implies rehabilitation), and wellness (put the focus on well-being, i.e., healthy body and healthy mind). Similarly, multiple and conflicting definitions of medical tourism exist, due to the difficulty in separating medical tourists from other patients, and lack of a global standards-setting body. Consequently, scientific researchers, states, and even hospitals within states, have adopted different definitions. For that reason, a comparative analysis is associated with huge constrains.

Medical tourism (basically) has non-leisure motives. Tourists want to get medical treatment in appropriate medical facilities (hospitals, clinics, health professionals, equipment) (Kušen, 2011). Also, often it can be seen as an additional medical service to conventional tourism (UN ESCAP, 2009). The narrowest definition of medical tourists includes those travellers whose primary motive is medical services, but it can also be leisure tourists who opt for getting treatment during the visit. Some authors (Crozier & Baylis, 2010; Balaban & Marano, 2010; Connell, 2011) find the necessity for a tourist to cross an international border in order to be classified as a medical tourist, while others (Jagyasi, 2010; Gligorijević & Novović, 2014) also include domestic trips with medical motives. In case of international medical tourism motives are varied, dissatisfaction with medical services in the host country, high costs, lack of adequate insurance, improvement of quality of medical services in developing countries, unequal legal and ethical attitudes regarding complex health conditions (abortions, organ transplants, stem cell therapy, euthanasia, etc.), greater mobility, increased demand for aesthetic surgery (Connell, 2011). Connell (2006) also emphasizes than medical tourism implies that medical services have to be consumed in a relatively exotic location and during holiday. Goodrich & Goodrich (1987) argues that some tourist facilities (hotels) or destinations (spas) use health services with the aim of attracting guests and

offer them additional service. These health services may include examinations by qualified doctors and nurses at a resort or hotel, special diets, acupuncture, transvital injections, intake of vitamin complexes, unique medical treatments for various diseases such as arthritis and the like, but exclude surgery. Also, tourist medical services could be highly invasive, such as heavy surgery (heart, organ transplants, hips, etc.), and include rehabilitation in an appropriate environment. Based on these differences, we have two types of medical tourists. The first group is consisting of persons who travel for medical services. In the second, persons travel mainly for tourism reasons but consume medical treatment(s) during the stay at the destination. Spa tourism, as a component of health tourism, offers services mainly based on mineral and thermal water. Medical spa centers follow the concept of "*indulge and contribute to health*". They promise extensive medical care in a comfortable setting. During a medical stay at a modern spa, the doctor assumes responsibility for health and recovery. The treatment is maximally tailored to the guest's health, although this medical aspect cannot be compared to the formal medical procedure. Medical wellness is not based on the treatment of patients but mainly on prevention. Finally, medical wellness provides a good reason for long-term lifestyle changes (Ministry of Trade, Tourism and Telecommunication RS, 2009). The medical spa can be perceived as integrated spa services, therapies and treatments aimed to provide wellness and medical care (Pollmann, 2005) to avoid overlap with the terms health and medical tourism.

Modern services in medical tourism

Medical tourism has a very long history, and there is evidence that ancient civilizations used spas with thermal and mineral springs for healing and recovery. This is typical for the ancient Romans (Hall, 2013). The practice was maintained until a few decades ago when there was rapid progress in this area. During the globalization and the technical and technological revolution, medical tourism services, in addition to natural resources, have begun to rely on modern techniques to promote health. As a result of that, the range of advanced medical tourism services is widespread and covers the treatment of severe medical conditions (cancer, organ transplantation, orthopedic surgery - hips, knees, back, spine, Bariatric surgery - lap-band, gastric bypass, gastric sleeve, sex change, etc.), invasive cosmetic services (breast implants, facelift, body couture, etc.), but also services without invasive procedures. Given the fact that there is no clear boundary between the terms health and medical tourism, it is challenging to precisely

determine the list of treatments that would qualify as tourism medical services. The focus of this paper is on spa medical tourism. Therefore we will focus our analysis on light, non-invasive medical services, broadly divided into general, cosmetic and dental services. The main reason is the fact that spa hospitals and hotels do not have appropriate medical resources for heavy surgery and treatment of heavy conditions. The modern tourism medical services include:

- Check-ups and health screening: ECG, ultrasound, heart hormone evaluation, lab work, assessment of fitness, training, circulation, and advice on heart problems and cardiac dysrhythmia, Thermographic evaluation, General cardiovascular evaluation, computerized digital dermoscopy, Digital Panoramic Dental X-Ray – orthopantomography, initial eye screening, etc.
- Dental services: dental implants, dental jewelry, corrective jaw surgery, gum treatment, crowns and caps, etc.
- Aesthetic medical spa services: dermabrasion, microdermabrasion, dermal fillers, laser hair removal, microblading, micro-needling, permanent makeup, sclerotherapy, skin rejuvenation and resurfacing, ultherapy, vaginal rejuvenation (laser or radio frequencies), vampire facelift (Platelet-rich Plasma), etc.
- Metabolic balance - treatment for overweight and obesity and
- Alternative and complementary medicine: Acupuncture, Ayurveda, Homeopathy, Naturopathy, Chinese or Oriental medicine, Chiropractic and osteopathic medicine, Electromagnetic therapy, Quantum (bio-resonance) diagnostics and treatments, Bowen therapy, etc.

Many spas in the world provide these services through the offer of specialized hospitals, clinics, high-class hotels and similar facilities. Leading European countries in the field of health tourism are Austria, Germany, Switzerland, Czech Republic, Slovakia, Lithuania, Italy, Portugal and Spain. According to the Best European Health Spas website, the following hotels are highlighted in the field of medical tourism Grandhotel Lienz, Austrija (5-star); Longevity Health & Wellness Hotel, Alvor, Portugal (5-star); Spa Hotel Royal Palace, Turcianske Teplice, Slovakia (5-star); Hotel Imperial – SPA & Health Club, Karlovy Vary, Czech Republic (5-star); Vilalara Longevity Thalassa & Medical Spa, Porches – Lagoa, Portugal (5-star); Luxury Spa Hotel Olympic Palace, Karlovy Vary, Czech Republic (5-star); Savoy Westend Hotel, Karlovy Vary, Czech Republic (5-star); Tree of Life SPA Resort, Lazne Belohrad, Czech Republic (4-star); Regena Health Resort & SPA, Bad Brueckenau,

Germany and Boutique & Feelness Hotel Muerz, Bad Fuessing, Germany (4-star) (Best European Spas website).

Box 1: *Example of a modern medical spa hotel package "Royal Cardio medical" package in the Spa Hotel Royal Palace, Turcianske Teplice, Slovakia (11 days)*

- 10 nights in chosen room category;
- 1x complex initial medical examination of all organ systems and examination focused on cardiovascular system;
- 1x ECG examination and 1x Exercise ECG examination;
- 1x Echocardiographic examination;
- 1x Holter ECG monitoring and 1x Holter monitoring of blood pressure;
- 1x complex biochemical blood examination to assess cardiovascular, endocrinological and oncological risk factors;
- 1x preparation of your individual treatment plan;
- 21x spa treatment procedures based on physician's recommendations; treatments may include hydro therapy, massages, individual rehabilitation, dry CO2 wrap, oxygen therapy, gas injections, ergometer, group rehabilitation, electro therapy, Nordic walking & more;
- Unlimited access to the Aqua Park and herbal sauna, incl. early morning swimming 1 hour before the park opens;
- Daily 30 min. admission to the thermal spring bath "Royal Bath"

Source: *Best European Health Spas*

The services, in most cases, are in the form of packages that cover medical, spa and wellness facilities, with complementary tourist services. Prices vary depending on the type of medical services, accommodation and number of days. Box 1 presents an example of a medical spa hotel package as a benchmark for similar offers.

Medical tourism services in Serbian spas

After the Second World War, in the period of socialist Yugoslavia, spa destinations were targeted by social plans for the treatment, rehabilitation, and recreation, which accelerated their development. Considering that the opening of the specialized hospitals as spa resorts was the result of political decisions, they are evenly distributed throughout the territory of Serbia. In the context of the uncontrolled development of tourism, spas have grown into urban settlements, with weekend settlements and rental houses, attached. In most cases, spas lost their status of health and medicine resorts as a result of developmental delays and neglect. With more substantial tourism development and revitalization of the market economy, spas are slowly but well recovering - old hotels are being rebuilt and new ones are

being established. It is also important to emphasize that research shows "there is room for improvement in the level of services which would lead to the greater guests‘ satisfaction" (Vujić, et. al, 2019). Today, the medical market supply of Serbian spas can be divided into two basic categories, the specialized hospitals – RH-centers offer and private services. As reported by RFZO, Table 3 presents spas with RH centers (specialized hospitals) in Serbia.

Table 3: *Distribution of RH centers (special hospitals) in Serbian spa**

Spa	**Name of RH-center of the specialized hospital**
Gornja Trepča Spa	Specialized Rehabilitation Hospital "Atomska banja", Gornja Trepča
Junaković Spa	Specialized Rehabilitation Hospital "Junaković", Apatin
Kanjiža Spa	Specialized Rehabilitation Hospital "Banja Kanjiža", Kanjiža
Kovijača Spa	Specialized Rehabilitation Hospital, Banja Koviljača
Rusanda Spa	Specialized Hospital "Rusanda", Melenci
Vrdnik Spa	Specialized Rehabilitation Hospital "Termal", Vrdnik
Bujanovaćka Spa	Specialized Rehabilitation Hospital "Bujanovac", Bujanovačka Banja
Gamzigradska Spa	Specialized Rehabilitation Hospital "Gamzigrad", Gamzigradska Banja
Mataruška Spa	Specialized Rehabilitation Hospital "Agens", Mataruška Banja
Niška Spa	Institute for Treatment and Rehabilitation of Rheumatic and Cardiovascular Diseases, Niška Banja
Prolom Spa	Specialized Rehabilitation Hospital "Prolom banja", Prolom Banja
Ribarska Spa	Specialized Rehabilitation Hospital, Ribarska Banja
Selters Spa	Institute fro Rehabilitation "Selters" Mladenovac
Sijarinska Spa	Specialized Rehabilitation Hospital "Gejzer", Sijarinska Banja
Sokobanja	Specialized Rehabilitation Hospital "Banjica", Sokobanja; Specialized Hospital for Lunge Diseases and Tuberculosis "Ozren", Sokobanja; Specialized Hospital "Sokobanja", Sokobanja
Vranjska Spa	Special Hospital for the Rehabilitation of Degenerative Rheumatism and Post-traumatic Conditions, Vranjska Banja
Vrnjačka Spa	Special Hospital for the Treatment and Rehabilitation of Digestive and Diabetes Organ Diseases, Vrnjačka Banja

* we included spas classified as touristic places
Source: *PIO fund, 2020.*

These hospitals are central spots and providers of medical tourism services in Serbian spas, and 95% offer basic medical check-ups, rheumatological

rehabilitation, neurological rehabilitation, orthopedic rehabilitation and lung therapies ((Ristić-Anđelkov et al., 2015), according to their primary purpose. In this paper we do not intend to conduct a detailed analysis of spa medical services, but to determine if Serbian spas offer modern medical tourism services. We used publicly available information on the Internet and promotional materials from *42nd Belgrade Tourism Fair*.

Most hospitals offer diagnostics (labs, ultrasound and ECG) (Ristić-Anđelkov et al., 2016a, Ristić-Anđelkov et al., 2016b), while the list of services includes Electrostimulation, Peloid therapy, Interpherent therapy, Electrophoresis, Steadily galvanization, Diadinamic, High-frequency currents, Electromagnetic therapy, Vasculator, Pharadization, Hydro-kinezi therapy, Hidrogalvanic bath, Kryo therapy, Extension of the spine, Magnet therapy. Only a few hospitals have differentiated offer, which includes Orhtokin treatment for rehabilitation, Peloid therapy, Quantum therapy (and diagnostics), Osteodensitometry, etc. Only few hospitals and hotels offer services similar to European spa centers and hotels. Institute Niška Banja has special diagnostic programs and treatment (Program for examination and treatment of rheumatic diseases; Program for testing and treatment of cardiovascular patients; and Manager "check-up"). Box 2. contains a set of services, as an example of a modern tourist medical offer.

Box 2: *Manager "check-up", 3-5 days*

- Full board accommodation
- Examination by the specialist in internal medicine-cardiologist
- Risk factors for coronary atherosclerosis-dyagnostic and correction
- Standard electrocardiogram-analysis
- Rö graphy of the heart and lungs
- Laboratory analysis of parameters in blood and urine
- Echocardiographic heart examination
- Colordopler of the neck blood vessels
- Exercise test
- Prescription of medicamentous therapy and diet regime
- Examination by the specialists in physical medicine and rehabilitation
- Examination by the specialist in internal medicine-rheumatologist
- Prescription of balneo-physical therapy

Source: *Pricing of Special Diagnostic Programs and Treatments - Institute Niška Banja*

Hotel Merkur in Vrnjačka Banja also has a form of modern spa medical services. This medical spa complex has basic and additional services, with initial effort for introduction of green hotels (Kostić, et. al, 2019). For example, they have Tecar apparatus, Extensometer, Osteodensitometry,

Gastroenterologist's checkup, EMNG, Thyroid gland hormones and Gynecologist's checkup. The hotel offers several packages: Fast diagnostics, The Merkur Medical Package, Classical Half-Board and SPA Haf-Board (does not include medical services). The Merkur Medical Package is presented in Box 3.

Box 3: *The Merkur Medical Package*

- Accommodation in ½ room
- Full board meal plan
- 1 x medical check-up + ECG
- 24/7 medical team on duty
- Balneal therapies with thermal mineral water
- Medical visits three times a week
- Dietetics and anthropometry
- Laboratory services
- Consultative specialist and subspecialist checkups, as recommended by the doctor
- 3 x physical procedures a day as recommended by the doctor
- Admission into the Aqua Centre and Fitness Centre every day
- Additional laboratory analyses and physical therapies, depending on the patient's conditions and needs

Source: *The Merkur Medical Package*

Vrnjačka Banja, the most developed spa in Serbia, has the Center of Medical Aesthetics "Marijana" with modern equipment and services (Hyaluron, Botox, PRP treatments, Ultrasound cavitation, Zerona green laser, Face lifting with radio waves, Chemical Piling, etc.). Prolom Banja has a capacity for radio-wave surgery and diamond microdermabrasion. At the same time, specialized hospital *Sokobanja* offers two programs, *Antisress program* and "*Soko life*" for the regulation of body weight. Still, neither the printed leaflet nor the website provides any information about these packages. Five-star hotel *Premier Aqua* in Vrdnik is the only hotel in Serbia that offers high-class services in medical tourism similar to modern world spas, through its own medical centre *Aqua Medica*. Medical services are in the form of packages, i.e., *Medical Day* (minimum 4 nights), *Beat Diabetes*, *Detox package*, and *Detox with Oxygen*. Guests can also have Aesthetics treatments (Exilis radiofrequency and Mesotherapy - no needle mesotherapy).

Conclusion

Even though spa tourism in Serbia has a long tradition, the services currently offered in specialized hospitals (Rh-centers) are not in line with the trend of modern tourist medical services. The private market in domestic spas almost does not exist, except for the high-class hotel in Banja

Vrdnik. We take into account the possibility of omission, but it was only possible as a result of poor promotion because we relied on detailed analysis of promotional materials (printed and virtual).

In order to become competitive, Serbian spas need to update and upgrade medical services and to offer modern tourist products to the market. Having in mind that this type of medical services are mainly correlated with wealthy guests, it is not likely to expect that specialized hospitals can upgrade their facilities in a short time. Public-private partnership is a model that could connect medical resources and higher quality accommodation. Serbia is an emerging country and for that reason, it is essential to use and to mix all available resources to become competitive, at least in the regional market. We believe that medical services in spas is one of the chances to improve the tourist offer.

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