

## Recommendations, Charter of AITB Services of Thermalism and Wellness in relation to the Covid 19 Pandemic (April-2021)

### Introduction

The current Covid-19 pandemic caused by the SARS-CoV-2 virus and the confinement measures promoted for its containment, have affected the quality of life and well-being of millions of people.

Besides the mortality generated, a large number of sequelae is being observed in those people who have survived a Covid-19 infection.

When the signs and symptoms which develop during or after an infection compatible with COVID-19 continue for more than 12 weeks and are not explained by an alternative diagnosis, the condition is known as Post-Covid 19 Syndrome or Prolonged Covid, already recognized by the WHO as a new disease in the International Classification of Diseases.

The persistent symptoms in Covid 19 survivors that have occurred most frequently are:<sup>1</sup>

- Fatigue or muscle weakness: 63%
- Respiratory sequelae: 39%<sup>2</sup>
- Sleep disorders: 26%
- Anxiety and depression: 23%
- Hair loss: 22%
- Smell disorders: 11%
- Heart rhythm disturbances: 9%
- Joint pain: 9%

But there are also several important population groups that have been impacted by the disease and its containment measures. Among these, the healthcare personnel who exhibit symptoms of burnout and post-traumatic stress, people from the general population subjected to frequent and prolonged confinements during quarantines who have presented worsening of their underlying clinical conditions such as diabetes, hypertension, osteoporosis, cardiovascular disorders and untreated oncological problems. There is also the vast majority of individuals confined who did not have problems before the pandemic, some of them caregivers, and who have presented symptoms of stress, anxiety, muscle weakness due to lack of mobility and overweight among many others. The above makes spas and thalassotherapy centers optimum places for the assessment, prevention, treatment, rehabilitation, and first and foremost, for the promotion of healthy lifestyle habits within natural accessible and sustainable environments, taking advantage of the particular therapeutic resources they have available, such as the climate, the mineral-medicinal waters and the sea water, as well as their facilities created for their provision and management through different treatment techniques.

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<sup>1</sup> Huang C, Huang L, Wang Y, Li X, Ren L, Gu X, et al. 6-month consequences of COVID-19 in patients discharged from hospital: a cohort study. *Lancet* 2021;397:220-32

<sup>2</sup> Xiong Q, Xu M, Li J, Liu J, Zhang J, Xu Y, et al. Clinical sequelae of COVID-19 survivors in Wuhan, China: a single-centre longitudinal study. *Clin Microbiol Infect* 2021;27:89-95.

## Foundations for the implementation of the programs

1. Customers and users will be more demanding, they will ask for better services.
2. There will be a trend of need for local tourism, which demands short displacements and where the importance of the natural environment will be increasingly compelling.
3. The Slow Tourism movement, slow, sustainable and respectful with the environment, and aware of the health risks for both people and the planet, will be an attractive and necessary alternative.
4. The search for spaces for outdoor activities, taking advantage of the climatic, lighting and pure air factors, will be the rule.
5. The spas and thalassotherapy centers will become institutions for the promotion of health and wellness and for the prevention of specific problems, which will lead to a reconsideration of the descriptions of the services.
6. Elderly people will continue to require wellness services from a new perspective, more effective and individualized according with their needs, which will demand new models of attention and the transformation of the already existing ones, such as the IMSERSO model in Spain.
7. It will be necessary to hire new staff trained to treat the problems derived from Covid- 19 and the confinement, such as physiotherapists, occupational therapists, nutritionists, monitors of physical exercise, psychologists, according to the vocation and mission of each center.
8. In order to make known the services provided in the different health resort medicine and wellness centers, is necessary to update the communication and marketing tools, adapting them to the already consolidated environments of social networks and available electronic media. The information should be addressed, on the one hand to the general population, but also to all the actors of the healthcare system and to the regulatory bodies and decision-makers, at the local, regional and state levels.
9. The promotion of long-term self-care will be an imperative for all interventions within the health resort medicine and wellness tourism centers.
10. For specific cases of prolonged Covid-19 sequelae, there are already created protocols, based on evidence and that can be easily adapted in many of the health resort medicine and wellness tourism environments, which have appropriate facilities for this purpose.
11. It is essential to promote and generate research in the field of health resort medicine and wellness in association with universities and academic institutions.

It is important to recognize our strengths and weaknesses which would be:

### Strengths:

- The mineral-medicinal or natural mineral water and the sea water as a differentiating element of our centers and whose effectiveness is widely demonstrated.
- The *Natural Environment* where the majority of our facilities are located. The COVID pandemic has demonstrated the great need and usefulness of nature and its healing features, against the urban environments with big human concentrations, big hospitals oriented to acute diseases and which have been forgetting the *Culture of Care*. Reduction of face-to-face appointments in the Health Centers, work overloads, waiting lists, etc.
- The size of our centers, more easily embraceable by the users, welcoming and that facilitate contact and hospitality.
- The treatment techniques, not very aggressive and well tolerated, especially useful for the treatment and recovery of chronic diseases. The therapeutic and relaxing value of heat.
- An adequate and useful space to carry out activities of Education for Health and Promotion of Health and Wellness, so useful and necessary to promote Self-care, placing the person and not only the disease as the center of the process of attention and care.

*“Hydrothermal therapies in the era of pandemics induce a hormonal response to stress that generates Resilience and Resistance to pathogens and negative exogenous stimuli. The fragility of the SARS-Cov2 virus with its lipid coat, sensitive to heat and to warm and humid environments that make difficult the propagation of droplets and aerosols. The heat applied in the upper respiratory tract can support the first line of defense of the immune system and favor the mucociliary clearance of the respiratory mucosa and inhibit or eliminate and inactivate the virus in its site of entrance and where it lodges for the first time, which constitutes a mobile and humid barrier that is vital in the defense against respiratory infections”.*

**Marc Cohen Todd:** The Benefits of Hydro-Thermal Therapies for Building Health and Resilience | Australasian College of Nutritional and Environmental Medicine (acnem.org)  
Turning up the heat on COVID-19: heat as a therapeutic intervention (nih.gov)

*“There are some important clinical implications. First, COVID-19 survivors can benefit from spa therapy. In addition, the spas can increase the number of places that provide rehabilitation to COVID-19 survivors. Therefore, the workload of the hospital rehabilitation units, which are currently overloaded due to the acute rehabilitation of COVID-19, would be reduced. Finally, taking into account its economic nature, the integration of balneotherapy in rehabilitation programs can reduce the economic burden of COVID-19 on health systems, particularly for some European countries, Turkey, Israel and Japan, where balneotherapy is widely available and is preferred by the patients”*

**Sinan Kardes:** Spa therapy (balneotherapy) for rehabilitation of survivors of COVID-19 with persistent symptoms. <https://pubmed.ncbi.nlm.nih.gov/33387940/>

*“Balneotherapy is a clinically effective complementary approach in the treatment of low-grade pathologies related to inflammation and stress. The biological mechanisms by which the immersion in mineral-medical water and the application of sludge alleviate the symptoms of several pathologies are not yet fully understood, but it is known that the neuroendocrine and immune responses, including both humoral and cell-mediated immunity, are involved in these mechanisms of effectiveness; leading to anti-inflammatory, analgesic, antioxidant, chondroprotective and anabolic effects along with the neuroendocrine-immune regulation in different conditions.”*

**Ortega Rincón:** Balneotherapy, Immune System, and Stress Response: A Hormetic Strategy? (nih.gov)

**Stefano Masiero:** Health resort medicine and human immune response How balneology can protect and improve our health: <https://www.femteconline.org/NEWS/0077-Masiero.pdf>

#### **Weaknesses:**

- The progressive weight loss of the medical areas in the *Medical Resorts (Balnearios)* and in the *Thalassotherapy Hotels*.
- Their distance from the *Healthcare System*, not only because –as in the case of Spain- thermal treatments are not part of the **Portfolio of Sanitary Services** of the *Public Health System*, nor (with few exceptions) of the Private Health Insurances, but because of the little or no visibility and recognition among the healthcare professionals.
- The shortage of full-time health professionals. Little research and few studies of results of our activity. The lack of professionals in nursing, occupational therapy, psychology and consultant physicians from other medical specialties.
- The great dependence on the Program of the IMSERSO and other programs of public entities, which has placed institutions and entrepreneurs in a “comfort zone” and has not prompted to search for new prescribers and/or users.
- The lack of adequate communication policies, which make difficult the visibility of the sector.
- The size and characteristics of many of the companies of the health and wellness tourism sector, with poor responsiveness.

## Services to enhance or develop.

It is proposed to promote the following services:

- Post-confinement Plans, aimed at the general population of all ages that has been subjected to prolonged quarantines and at socio-sanitary professionals affected by stress and burnout, which include:
  - Anti-stress programs, in the face of the post-traumatic stress that the disease and the hospital admission caused in the patients; and the stress, exhaustion and decay in the general population.
  - Spaces and activities to reduce the deficit of contact with nature through Climatotherapy (Sun baths, Marine aerosols, “Forest bathing”). Take advantage of the gardens of the facilities for practicing yoga outdoors. Outdoors physical exercise and training.
  - Enhance individual treatments in the techniques of balneotherapy and hydrotherapy: Bathtubs, Jet stream, Seaweed wraps, as well as individual and collective breathing techniques.
  - In the face of isolation, promote activities in small groups, preserving the specific biosafety measures.
  - Implement and strengthen programs of *Caring non-professional caregivers*. Through “respite” activities, individual and/or in small groups.
  - Review our Corporate Social Responsibility policies - CSR: Offer for a certain period of time bonuses for professionals in all areas who have provided front-line services during the pandemic in the closest geographical settings. Assess the tax advantages that investments in CSR entail.
  - Enhance Physiotherapy and Therapies in the pool. Take advantage of the possibility that there are unemployed physiotherapists and contact them.
  - Design programs for retirees, IMSERSO model.
  - Finally, recover normality: not to live as before, but to live in a different and more healthy and sustainable manner. Nutritional education. Physical education. Health promotion. Recovery of physical condition.
- Plans aimed at people who had been affected by Covid-19 and who have symptoms or sequelae derived thereof:
  - Programs for evaluation and diagnosis of signs and symptoms and sequelae derived from Covid-19.
  - Evaluation through standardized scales of the impact that the disease, its treatment and the confinement had on the wellbeing and quality of life of the user.
  - Evaluation and specialized counseling in the case of severe and persistent symptoms of anxiety and/or depression, according to the prescription of the treating physician and psychological support and counseling in the center for health and wellness.
  - Programs of sleep assessment and hygiene.
  - Programs of nutritional assessment and counseling.
  - Prescription of programs of individualized physical activity and teaching of self-monitoring techniques to improve strength and physical endurance.
  - Techniques to reduce fatigue and joint pain.
  - Programs of specific respiratory therapy for those users who have remained with moderate to severe pulmonary deficits.
  - The plans defined for the post-confinement users would also be applied for this population group.
  - Rehabilitation programs for those individuals who need a more comprehensive management.

## Charter of thermal services post Covid-19

### **Services that require medical evaluation and prescription, and implementation and supervision by healthcare personnel.**

Services aimed at people with moderate to severe sequelae of Covid-19 (already described), users with comorbidities who need assistance and surveillance by the health team such as: hypertension, cardiovascular diseases, pulmonary alterations, rheumatologic diseases (fibromyalgia, arthrosis, rheumatoid arthritis, systemic lupus erythematosus), dermatologic disorders, chronic pain, sleep disorders, sequelae of neurological disease, cancer survivors, among other pathologies.

The service model requires the following steps and treatments:

1. **Initial assessment consultation:** It is a fundamental service that will need a greater dedication of time, to carry out a detailed history, physical exploration with the performance of respiratory tests, completion of questionnaires both of lifestyle habits and physical condition and some homologated COVID questionnaire.
2. **Treatment Plan,** previous meeting with the team of therapists and professionals who will intervene. Protocolization and temporal planning. Definition of therapeutic intervention goals and team members in charge of carrying out the treatments.
  - a. In those patients who require prescription for physical activity or exercise, the maximum heart rate to be reached will be defined according to age, as well as the fatigability index of the Borg scale which should be reached.
3. **Definition of protocols and algorithms of attention** in the face of incidents and/or emergencies that could arise.
4. **Follow-up and monitoring consultations:** the compliance with the treatment goals and the possible side effects thereof will be verified at this stage. The modifications and adaptations of the initial plan will be made according to this.
5. **Final consultation,** with evaluation and recording of the results. In this consultation, a counter-referral plan will be defined in the event that the patient has been referred by a primary health care physician or by a specialist. In case that the patient has not been referred, a plan for management of risk factors at home will be delivered and its compliance will be followed-up by telephone or teleconsultation.
6. **Satisfaction survey.**

### **Techniques and Services that can be offered:**

- Aerosols, Inhalations, Nasal Shower, Oral Shower, Garglings.
- Breathing exercise, both in cabin and in the pool.
- Specific respiratory therapy in cases of moderate or severe sequelae.
- Oxygen therapy.
- General physiotherapy, aquatic physiotherapy, and occupational therapy.
- Soaking in bathtubs.
- Shower jet, underwater shower.
- Application of peloids.
- Thermal aesthetic techniques for dermatological sequelae.
- Workshops of memory and mental gymnastics.
- Tasting workshops and exercises to treat taste and smell alterations.
- Complementary techniques: Acupuncture, moxibustion, etc.
- Specific techniques of aquatic physiotherapy such as Watsu, Ai chi...

- Programs of outdoor Monitored Physical Activity. Forest bathing. Coastal walks and Exposure to marine aerosols (in the case of Talasos).

In addition, users can access unmonitored services such as:

- Anti-stress treatments, yoga, mindfulness...
- Body massages, craniofacial massage (capillary weakness and hear loss, one of the sequelae of the Prolonged COVID).
- Hammam, sauna, salt cave.

**Divuligation and Training Activities:**

- Talks, lectures and workshops for the promotion of health wellness and self-care:
  - Healthy eating, physical activity, sleep hygiene, postural hygiene, stress management, spirituality and meaning of life, management of feelings and emotions, healthy aging.
- Training and updating courses for the professionals of the own centers of health and wellness and open to professionals of other centers. Special interest in respiratory therapy in the thermal environment.
- Promotion of meetings with socio-sanitary professionals, scientific societies, professional colleges and associations of patients, related to COVID-19, so they let us know their activities and we let them know our services.
- Thermal Athenaeum, conferences gatherings on Thermalism in the Arts (Literature, Cinema, Theater, Plastic Arts, Landscaping, Architecture, etc.).
- Courses and lectures on planetary health and promotion of sustainable life in the era of climate change.

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