
**Tourism and related services —
Medical spas — Service requirements**

Tourisme et services connexes — Spas médicaux — Exigences de service

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 228, *Tourism and related services*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Health tourism services are among the fastest growing sectors worldwide. While these services have so far been relatively unexplored, national tourism boards, the private sector and other relevant stakeholders consider health tourism as a sector with tremendous potential for growth and destination development.

There are large numbers of people around the world who choose health tourism services with the objective, for example, of escaping from the stress and rush of urban life, or of receiving healthcare abroad. These numbers have been increasing rapidly in recent years, hence it is necessary to identify the different products and services which can be offered in order to avoid confusion and meet the expectations of customers.

Regarding the use of natural resources in health tourism, there are already two standards which define the minimum requirements for quality services in both thalassotherapy centres (ISO 17680) and wellness centres (ISO 17679). These reflect the specificities of these two types of centres, considering in particular the different types of water used in each of them.

In order to complete the picture, this document will focus on the quality services at medical spas, taking into account their natural healing waters and their proven therapeutic and preventive benefits for health.

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Tourism and related services — Medical spas — Service requirements

1 Scope

This document specifies requirements for the provision of quality services at medical spas which use natural healing waters (except sea water) and other natural resources.

This document does not cover decisions that correspond to the medical profession.

This document does not apply to thalassotherapy centres or wellness spa centres.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7001, *Graphical symbols — Public information symbols*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

balneology

study of the therapeutic use of natural remedies (e.g. climate therapy, water treatments) from production to application

Note 1 to entry: This is an overarching term for the planning, development, operational and medical aspects of a medical spa.

3.2

care area

area assigned for carrying out health treatments

3.3

climate

composite or generally prevailing weather conditions of a region throughout the year, averaged over a series of years

Note 1 to entry: Weather conditions include temperature, air pressure, humidity, precipitation, sunshine, cloud and wind.

3.4

dry area

space within the care area where water is not used

Note 1 to entry: Examination rooms, gyms and relaxing areas are considered dry areas.

3.5

medical spa

legally recognised health establishment under medical supervision provided by a medical doctor, with natural healing waters and other specific natural resources such as the healing gases or the peloids used in health treatments

Note 1 to entry: In some countries the term “medical spa” is specifically recognized and regulated.

Note 2 to entry: Medical spa waters have been protected since the 19th century in order to avoid the negative impacts of potentially polluting human activities on the earth’s surface, which could affect both the emergence or origin flows and chemical quality of the water.

3.6

mineral medicinal water

naturally or artificially rising mineral water with proven therapeutic effects

Note 1 to entry: Medicinal waters are classified as a medication in some countries.

Note 2 to entry: Mineral medicinal water contains, for example, sodium chloride, sodium sulfate or magnesium sulfate.

3.7

mineral water

natural spring water with specific mineralization produced by artesian means, spontaneously or through drilling, used in medical spas for healing purposes

Note 1 to entry: In some countries mineral water is regulated by legislation, which establishes the content of mineralisation to be considered as mineral water.

3.8

natural healing gases

gases dissolved in spring water or rising from pure gas springs based on medicinal knowledge and balneological experience

Note 1 to entry: Sulfur gases, radon, CO₂ (e.g. from mofettes) are examples of healing gases.

3.9

natural healing water

mineral medicinal water used locally (extracted and applied in the vicinity of the spring)

Note 1 to entry: Thermal waters, mineral waters and gas waters are considered natural healing waters.

3.10

natural resources

elements and raw materials such as peloids or other natural remedies, used for health treatments

3.11

peloid

inorganic or organic mixture produced in geological and/or biological processes which has a fine-grained consistency, either by nature (natural peloid) or because it has been crushed in a simple process

Note 1 to entry: For further information on different types of peloids, see [Table 1](#).

Note 2 to entry: Mud and peat are two types of natural peloids, used for medicinal purposes.

Note 3 to entry: Peloids can contain water but also exist in dry form.

3.12

thermal water

water whose temperature at the emergence point is 4 °C above the average temperature of the place where this water emerges

3.13**treatment room**

separated room where treatments are carried out, usually located in a treatment area

3.14**wet area**

area using water, peloids and gas baths, located within the care area

Note 1 to entry: Treatment showers, baths, wraps and pools are considered wet areas.

4 Facilities and equipment**4.1 General requirements**

All facilities and equipment shall be kept in good condition and well maintained. Safety aspects and conformity with related standards should be considered when using equipment, especially electrical equipment.

Facilities and equipment shall also be clean and disinfected, with good ventilation, lighting and temperature, and free of obstacles.

The medical spa shall have sanitary facilities and dressing rooms for the staff.

Adequate access and facilities for customers with disabilities should be considered.

NOTE For further information regarding accessibility, refer to ISO 21542.

4.2 Reception

The medical spa shall have a reception. The reception area shall conform with the following requirements:

- It shall be in a separated area, in accordance with the hosting capacity of the medical spa, and signposted.
- A list of services and prices shall be available.
- There shall be different means of customer registration.
- Accepted payment methods shall be displayed.
- Reception service shall be provided at least during the opening hours of the treatment area.

Electronic registration should be considered.

4.3 Dressing room and sanitary facilities

The medical spa shall have a dressing room and sanitary facilities. This area shall conform with the following requirements:

- For hygiene reasons, there shall be access to the dressing rooms from the reception and exit to the care area.
- The floor and walls shall be coated with washable non-slip and non-porous materials.
- Dressing rooms shall be close to showers, toilets and lavatories.

Dressing rooms design should provide access for people with disabilities.

4.4 Medical room

There shall be a medical room for providing medical advice to customers on their request or if needed, for example, in emergency situations.

The privacy of the customers shall be guaranteed.

There should be a waiting room close to the medical room with enough seats for customers. At peak hours, there shall be a mechanism for making appointments.

The medical room shall have a lavatory and sanitary facilities close to it.

4.5 Care area

4.5.1 General requirements

The care area includes a dry area and a wet area which shall be separated.

Undressing, care activities and dressing should preferably be carried out in the same room or in adjacent rooms.

The care area shall conform with the following requirements:

- Temperature shall not be lower than 18 °C.
- In case of non-natural lighting, lighting shall be indirect in order to reduce reflection on the water surface.
- The necessary set of instruments relating to the medical spa specialization to be used for examination of customers and hydrotherapy treatments shall be available.
- Telephone numbers for emergency calls shall be available.
- Treatment rooms shall have hand-washing and disinfection facilities.
- There shall be a first-aid kit containing clinical material (e.g. automatic or semiautomatic defibrillator) and necessary basic medicines. It should be easily available for trained staff.

4.5.2 Dry areas

Dry areas shall conform with the following requirements:

- A heated rest area shall be located in the dry area. It shall be equipped with sofas or beds for customers' relaxation after treatment sessions in the vicinity of care cabins.
- The temperature shall be kept between 18 °C and 25 °C, depending on the use.
- All equipment shall be washable and made of easy disinfected materials.

There should be a first-aid room for minor care operation.

4.5.3 Wet areas

For safety reasons, wet areas shall have handrails, especially near and in pools and jet showers. Ground and floor surfaces shall be slip resistant, and non porous end-to-end carpets, wooden flooring, wooden duckboards or other similar materials shall not be used except for wood treated to prevent slipping.

Pools can be located indoors or outdoors and can be therapeutic or non-therapeutic.

All pools used for treatments shall contain thermal or mineral water.

In all cases, pools shall be adapted to the services provided by the medical spa and shall operate according to the principle of reverse hydraulicity (water intake from the bottom and evacuation at the surface).

If the medical spa is also equipped with swimming pools for leisure, this shall be clearly indicated.

Whenever customers use therapeutic pools responsible staff shall be in attendance.

Showers equipped with hot and cold water shall be available at the entrance of the pool.

The maximum water height shall be 1,40 m or, if deeper, there shall be a professional viewing the customers having hydrotherapy. There shall be a sign indicating the depth and temperature of the water.

Swimming pool areas shall display all relevant information regarding security and preventive measures for customers. The information shall be displayed in a way that can be understood by the customer, such as using graphical symbols.

Pools should have ramps or stairs to accommodate persons with disabilities.

4.6 Equipment to treat waste water

The medical spa shall have specific equipment to treat waste water.

Reuse of waste water is not allowed.

Treated waste water should be discharged according to the environment protection considerations.

5 Staff

5.1 General requirements

The medical spa staff shall be identified. Furthermore, staff in contact with customers shall be identifiable by their name.

Staff shall know the services offered by the medical spa.

Considering the type of customers and the specialization of the medical spa, senior management shall define the profile of the staff who are usually in contact with customers. Certain tasks shall be developed by qualified and accredited staff.

The medical spa shall identify responsible people for at least the following posts:

- general manager;
- medical manager;
- other care area staff;
- maintenance;
- assisting manager;
- booking;
- sales;
- other service staff (e.g. laundry, cleaning, procurement).

Senior management shall establish an internal communication system so that all members of staff are always informed of the degree of customer satisfaction in their field of work. This system shall ensure that suggestions from the staff are analysed.

The recruitment of a new member of staff shall include a training period. To make this activity easier, the organization shall have a document explaining the basic aspects of the medical spa.

The medical spa shall design an annual training program for staff which includes, for example, items regarding hygiene and safety issues, IT skills, handling products of common use at the medical spa, environmental good practices, politeness rules, commonly used foreign languages, provision of customer service, and emergency and evacuation plan (considering in both cases customers with disabilities).

This training program shall include emergency training (e.g. first-aid, emergency and evacuation plan) and basic life support (BLS).

All staff should periodically have a medical check-up to ensure that they do not transmit diseases.

5.2 Care area staff

The medical spa shall have a medical manager, preferably a specialist in balneology, to monitor all treatment activities.

There shall be a medical doctor.

There should be qualified staff including a physiotherapist, a hydrotherapist, a hygiene specialist, a nurse, a nutrition/dietician and a sophrologist (psychologist), as well as specialized doctors in balneology or related treatments.

Reeducation in physiotherapy shall be carried out by a medical doctor or a physiotherapist.

All the staff involved in the care area shall be aware of the action plan in case of clinical emergencies.

5.3 Technical staff

The medical spa shall employ duly qualified staff for the maintenance operations, including water processing operations. Maintenance operations shall be supervised by a qualified professional engineer or technician.

Maintenance staff shall take appropriate measures as soon as any abnormality is detected.

There should always be someone on duty with the responsibility for evaluating any technical problem.

6 Natural resources

6.1 General requirements

The use of natural resources from several sources for human wellbeing is based on experience of the beneficial effects achieved with many illnesses over the years. These positive effects have been observed at medical spas for generations and can also be objectively measured by means of modern medical advances (including balneology and spa research).

Relevant natural resources for this document are:

- a) natural healing waters:
 - mineral waters;
 - thermal waters;
 - gas waters.
- b) healing gases;
- c) peloids.

The medical spa shall identify and communicate to the customers which treatments are offered according to the natural resources it uses and the properties of its natural healing waters.

All medical spas shall offer treatments based on healing waters, but treatments with peloids and healing gases are not mandatory.

NOTE Although climate could be considered as part of a treatment, this document does not include requirements regarding the climate because of the difficulties of controlling it.

6.2 Natural healing waters

6.2.1 Mineral and thermal springs

6.2.1.1 Protection zone of mineral springs

The areas around mineral springs shall be subject to special protection with both qualitative and quantitative criteria. The medical spa shall document the qualitative and quantitative criteria to protect these areas.

a) Qualitative protection

The aim of qualitative protection is to avoid pollution. Three categories of protection zone apply:

- protection zone I: protection of the immediate area of the extraction point;
- protection zone II: protection against accidental pollution, including microbiological contamination (50-day period if required);
- protection zone III: general protection of the rest of the catchment area.

b) Quantitative protection

Quantitative protection mainly concerns interventions into the hydrodynamics of the natural healing water. It is designed to protect the specific properties of the natural healing water along with its flow and abundance at the extraction point.

6.2.1.2 Water spring harnessing plan

There shall be a water spring harnessing plan which includes at least the following aspects:

- a) Geographical situation of the water spring;
- b) Documentary summary: both historical and legal documents (past and present) shall be filed:
 - historical background: the medical spa shall have a document that gathers all the information from the development of its activity;
 - legal documents and authorizations of use;
 - characteristics of the spring defined in a document: flow rate, temperature, electrical conductivity;
 - works for adapting the water spring: the medical spa shall prove the measures taken for the adequacy and improvement of the water catchment, if any;
 - laboratory analysis: the medical spa shall annually make a complete physical-chemical and microbiological analysis by an authorized laboratory. This analysis shall be carried out in order to monitor the mineral content of the water. The result of the annual analysis shall be provided to the customers upon request.

- c) A study for the delimitation of the protection zone, in order to safeguard the mineral water in its quantitative and qualitative aspects. This study shall contain aspects regarding geology, hydrogeology, hydrochemical and physical vulnerability of the aquifers, for example:
- geological study: description of the geological frame in which the whole protection zone is applied, together with graphical information in a suitable scale;
 - hydrological study;
 - description of the exploitation springs;
 - situation and characteristics;
 - water points list;
 - appraisal of the spring;
 - technical information on the pumping system;
 - catchment water depth and location of the pumping equipment: accomplishment of a pumping essay and definition of the desired wealth of exploitation;
 - characteristic parameters of the aquifers;
 - hydrochemical study: chemical analysis shall be carried out in these cases to determine the mineral content of the water and the acidity level and possible contamination;
 - physical study: isotopic analysis shall be carried out in those cases where it is considered necessary to determine the time of residence of the water or to evaluate the zones of overloads;
 - vulnerability study: the above-mentioned study shall include a list of potentially polluting activities, in which the origin and characteristics should be specified, as well as a study of the vulnerability of the areas crossed in order to know the auto-purifying power of the soil.

[Annex A](#) includes a guideline for characterization of natural healing waters as well as for the monitoring of natural fluctuations of their composition.

6.2.2 Balneological assessment and report

Whether particular natural healing water meets the requirements for health treatment shall be proved in a report.

This report can be developed by several means, for example by a qualified professional expert(s), the medical manager of the medical spa, a university or an officially recognized institute in medicinal balneology.

The medical spa shall develop the report once and revise it whenever the relevant natural resource's characteristics change in a significant way.

The report shall include:

- a) general information (e.g. place, subject, period of examination);
- b) the name and address of the report writer;
- c) a list of documents relevant for the assessment;
- d) an evaluation of the analysis findings and any control analyses:
 - main substances, especially active agents and physical qualities;
 - medical assessment of the hygienic-bacteriological results of the natural remedies.

- e) details of therapeutic use in treatment (depending on the treatment principle);
- f) indications and contraindications regarding illnesses;
- g) summary and evaluation of the category the medical spa has applied for.

This report should consider a comparative assessment of the natural remedies on the basis of empirical tests from the ground in the same area or from another medical spa.

6.2.3 Physical, chemical and microbiological properties of natural healing waters

It shall be proved that the natural healing waters are in hygienically and microbiologically pristine condition by means of the following tests:

- a) physicochemical tests;
- b) chemical tests;
- c) microbiological tests.

[Annex B](#) contains a guideline with items that might be checked on each of these tests.

6.2.4 Control analysis of natural healing waters and monitoring

6.2.4.1 Analysis of natural healing waters

The analysis is taken as the basis for the assessment of balneological treatment and the hydrogeological and technical state of a medicinal spring. Medical spas and facilities of medicinal springs shall analyse their medical springs every 10 years (microbiological, chemical and physical analyses). Medical springs shall be checked for microbiological contamination every 2 years.

Regular control analyses are part of the monitoring process. They take the form of chemical and hygienic tests at the medical spring and the place of treatment. Their scope differs depending on individual circumstances.

6.2.4.2 Control analysis and monitoring

Physicochemical tests shall be carried out; water used at medical spas shall be sampled at the extraction point at least once a year and analysed. General hygienic tests are part of the regular monitoring process. Water at point of use shall be sampled and analysed at least once a year.

In the case of constant extraction, microbiological tests shall be carried out at least every 3 months, and more frequently in the case of irregular use.

Should control analysis reveal essential changes to a spring, the reasons shall be investigated and a new reference analysis shall be conducted. This is also the case if a spring is newly tapped.

6.3 Natural healing gases

6.3.1 General

Carbon dioxide, radon and hydrogen sulphide are the healing gases currently used for therapeutic purposes.

Carbon dioxide can escape in a dry state (mofettes) or in healing water, be developed artificially or be extracted from healing waters rich in carbon dioxide. Due to its dilatory effects on the capillary vessels in the skin, CO₂ baths are mainly applied for cardiovascular illnesses. Sometimes CO₂ is used in subcutaneous injections.

Radon is a ubiquitous noble gas. In balneological treatment, this alpha-emitting product is used, for example, in the form of baths containing radon or inhalation and ingestion.

Hydrogen sulphide is a component of natural healing waters. Therapeutically, it is mainly applied for rheumatic/degenerative symptoms as well as skin diseases.

6.3.2 Natural healing gases assessment and report

Whether gases are suitable for use in therapy shall be proved in a report. This report can be developed by several means, for instance by a qualified professional expert(s), the medical manager of the medical spa, a university or an officially recognized institute in medicinal balneology.

A healing gas analysis examines the composition of the gas and serves as the basis for the assessment of balneological treatment as well as the geological and technical conditions.

Minimum requirements for a healing gases analysis and report are as follows:

- a) general details (e.g. purpose of healing gas analysis, type of analysis, date, place of extraction);
- b) organoleptic examination;
- c) temperature of gas;
- d) chemical tests.

[Annex C](#) contains a guideline with items that might be checked regarding these points.

6.3.3 Control analysis of natural healing gases and monitoring

The main active substances shall be determined every 2 years in a control analysis.

A healing gas analysis shall be made at least every 10 years.

6.4 Natural peloids

6.4.1 General requirements

Peloids can be classified according to [Table 1](#).

Table 1 — Type of peloids

Type of peloid	Geological-genetic group
Unconsolidated rocks (EU peloids)	
Peat (high moor peat, low moor peat, moorland)	Sedentary peloids
'Lebermudde', peaty silt, diatomaceous earth	Limnic peloids
Marine mud (salt water mud), sapropel, liman	Marine peloids
Mud-like swelling sediments (sulphide mud, sulphuric mud, ochreous mud)	Crenogenic peloids
River mud	Fluviatile peloids
Loess	Aeolian peloids
Loam, clay	Pedogenic peloids
Consolidate tuffite ^a	Volcanogenic peloids
Consolidated rocks (Para peloids)	
Clay stone ^a , clay slate ^a	Clay stone peloids
Marl, chalk, lime, dolomite	Limestone peloids
Tuff ^a , phonolite	Volcanic peloids

^a Often referred to in balneological treatment as 'fango'.

6.4.2 Extraction and storage of peloids

Peloids shall be extracted and stored in such a way that their composition does not become altered. They shall be in perfect hygienic condition.

To protect natural deposits, peloids which have already been used for bathing treatment can be reused after being stored if they guarantee hygienic conditions.

If peat is going to be mixed, equal quantities of fresh peat and used peat shall be mixed for new packs and bathing treatment.

Careful blending shall be ensured for each individual application. The same peloid bath shall not be used for different people. Moreover, non-organic peloids or silt shall not be reused unless permitted by national regulations.

The customers should be informed about the quality of materials the organization uses upon request.

Peat should be at least 5 years in the original deposit or in a special regeneration basin.

6.4.3 Peloid assessment and report

If peloids are used, an analysis shall be carried out to ensure their qualities.

Peloid analysis provides an overview of its composition and the basis for assessing its balneological application and conditions prevailing in the deposit.

A peloid analysis shall include the following features:

- a) general details: name and address of the health authority or the qualified expert conducting the analysis, date of sampling and local tests, weather on the day of sampling and air temperature, air pressure in Pa, relative air humidity in percentage, details of previous weather conditions (e.g. in order to assess humidity conditions at the peloid deposit);
- b) brief geographical and geological description of the peloid deposit (structure and size) with exact description of the place of sampling (easting, northing, height above sea level) and an accurate plan of the surface, description of the deposit's surroundings including possible anthropogenic influences on the deposit, surface vegetation, definition of the peloid (i.e. high moor peat or low moor peat; consolidate tuffites);
- c) hydrological data (i.e. availability of springs, groundwater level at the time of sampling, draining proportion); type of sampling (i.e. ground cut by spade, drilling probe, excavator);
- d) depth of the extraction layer below the surface, mixed or individual sampling, quantity of the deposit contents, thickness, structure of layers and composition of subsoil at the place of sampling, cultivation activities, protection of the countryside, ownership; description of technology for the use and disposal of peloids (extraction, transport, temporary storage, processing, removal, depositing);
- e) details on the previous use of the peloid deposit.

The results of this analysis shall be compiled in a report.

6.4.4 Control analysis of peloids and monitoring

An analysis of peloids determines the composition of the peloids and serves as a basis for the assessment of balneological treatment as well as the geological and technical conditions.

Minimum requirements for analysis of peloids are as follows:

- a) physical tests;
- b) chemical tests;

- c) microbiological tests;
- d) characterization.

[Annex D](#) contains a guideline with items that might be checked regarding these points.

7 Maintenance, hygiene and cleaning

7.1 General requirements

The medical spa shall have a system to ensure that indoor and outdoor facilities and equipment are in a good state of cleanliness and hygiene, including disinfection and maintenance, where applicable.

This system shall be documented and recorded and include at least the following:

- equipment;
- activities to be performed;
- monitoring.

7.2 Maintenance

7.2.1 Preventive maintenance plan

An adequate safety level for customers and staff shall be guaranteed. For that purpose, the medical spa shall arrange a preventive maintenance plan which shall include at least all inspection/check of activities relating to the good condition and correct running of facilities and the replacement of their elements, with special emphasis on:

- a) lifts;
- b) air conditioning, heating and dehumidification systems;
- c) indoor facilities;
- d) outdoor facilities;
- e) electrical facilities, sockets and visible wires.

The person responsible for maintenance shall be in charge of the following:

- checking plans and inspections;
- checking that the maintenance tasks are carried out accordingly;
- periodically (at least annually) checking facilities and equipments. This inspection shall ensure the good condition and running of the equipment and devices;
- displaying basic instructions for all devices handled by customers whose use is not obvious, in the most used languages or in symbols, which shall conform with ISO 7001;
- recording tasks, inspections and other checking activities.

The maintenance service shall have a stock of materials in order to repair any fault that could affect the customer.

7.2.2 Emergency and evacuation plan

The medical spa shall have an emergency and evacuation plan. In this regard:

- a) instructions for emergencies shall be displayed and should include instructions for persons who are unable to evacuate independently;
- b) all automatic mechanisms, alarms and other equipment (e.g. lights, detectors, fire extinguishers, hoses) shall be in good working condition;
- c) emergency exits and emergency facilities shall be visible and without obstacles. Accessible exits shall be clearly signposted and marked on fire evacuation plans;
- d) a simulation drill shall be carried out at least once a year, informing the customers.

7.2.3 Hot water supply

All water heating supply systems such as boilers, electric heaters, gas heaters or water pumps shall be checked periodically. This shall be carried out according to the specific protocol of the medical spa for the prevention of legionella.

7.2.4 Plant room

The plant room hosts the water purification, ventilation and electrification equipment, as well as the pumping station, including the boiler and calory recuperation tanks. Water, ventilation and gas pipelines shall be differentiated. It is recommended that signs are used, for example, conventional colours for this purpose, and an automatic control system used for the technical equipment.

Access shall be restricted to authorized personnel only.

The plant room shall not be used to keep inappropriate objects.

7.2.5 Corrective maintenance

Whether the maintenance services for the medical spa are internal or subcontracted, there shall be documented corrective maintenance procedures for repairing any damage.

Corrective maintenance activities shall be recorded.

The medical spa shall put in place a mechanism enabling the staff (including cleaning staff) and customers to report any type of incident.

During the opening hours of the service the maintenance staff shall respect privacy in each treatment area.

Signposting for maintenance and cleaning activities shall be used when necessary.

7.2.6 Calibrating and verification of measurement equipment

A verification and calibration plan shall be established in order to ensure the correct working condition of measurement equipment and the reliability of the information it provides.

The results shall be recorded.

7.3 Prevention and microbiological control

7.3.1 General requirements

For the purposes of the prevention and microbiological control system the following water point controls shall be considered:

- a) facilities with higher risk:
 - cooling towers and evaporatively cooled condensers;
 - sanitary hot water systems with accumulator and return circuit;
 - heated water systems with continuous stirring and recirculation through high-speed streams or air injection (whirlpool, swimming pools vessel or therapeutic baths, hydrotherapy baths, high-pressure stream treatments);
 - industrial humidifier machines.
- b) facilities with lower risk:
 - water for human consumption systems (pipes, tanks), cisterns or mobile tanks and hot water without return circuit;
 - hidropinic cure colleting;
 - evaporatively cooled equipment which atomizes water, not included in a);
 - decorative springs;
 - irrigation by sprinkler systems in urban areas;
 - fire-preventive water system;
 - refrigeration elements using outdoor aerosolization;
 - other appliances which accumulate water and can produce aerosols.
- c) facilities with risk to breathing therapy:
 - aerosols;
 - nebulizers;
 - other equipment in contact with the respiratory system.

7.3.2 Disinfection and cleaning plan

Facilities which can be contaminated shall be treated with suitable hygienic measures; the system shall be able to guarantee a temperature above 55 °C for a minimum of 1 h in case of microbiological contamination risk.

Prevention of contamination shall be carried out in the facilities at the design stage and the maintenance stage. When any facility has indications of contamination it shall be treated (thoroughly disinfected) and subsequently checked.

The preventive measures shall eliminate or reduce unclean areas through adequate maintenance of the medical spa facilities. Cleaning and disinfection operations carried out in each facility or on equipment shall be recorded.

The annual cleaning and disinfection plan of facilities and equipment shall take into account at least the following schedule:

- a) every 6 years:
 - accumulator discharging;
 - dismantling, cleaning and disinfection of vessel diffusers for baths without recirculation.
- b) once a year (or after a month's break, after a reparation or structural modification or when required by the sanitary authorities):
 - total revision of the equipment for the breathing therapy;
 - cleaning, disinfection and general revision of the operational condition of the water system;
 - preventive cleaning and disinfection of all elements, conductions, temperature-mixing panel, vessel diffusers and other components of the hydrotherapy facility (whirlpool bath);
 - revision, cleaning and disinfection of all components of the recirculation system.
- c) every 6 months:
 - water tank cleansing and sterilization.
- d) every 3 months:
 - revision of the status and cleanliness of water accumulator tanks, both for human consumption and sanitary hot water.
- e) every month:
 - cleaning and revision of the status of the terminal points (e.g. taps and showers) of the water system on a representative and rotation basis, so that each item is revised annually;
 - drainage of the sanitary hot water valve;
 - temperature checking in a representative number of taps and showers on a rotation basis through the course of a year;
 - temperature checking in the cold water tank so the temperature is kept as low as possible.
- f) every week:
 - cleaning taps, showers and terminal points which are not frequently used (2–3 min);
 - draining the bottom end of the accumulator, if possible, of hot water (sanitary or mineral-medical).
- g) every day:
 - cleaning and disinfection of breathing therapy equipment before use;
 - temperature checking in the bottom end tanks of hot water accumulators;
 - disinfectant level and Ph manual control in baths and pools;
 - cleaning and disinfection, after use, of the walls and backs of the baths without recirculation of individual use;
 - emptying, cleaning, brushing and disinfection, after each working day, of the walls and backs of the vessel;
 - ventilation of facilities.

The activities of this plan shall be recorded.

7.3.3 Analytic control programme: analysis plan, data collection and control of parameters

The medical spa shall ensure that the following are carried out:

- a) preparation of the monthly analysis plan;
- b) follow-up of analysis performance according to the annual planning;
- c) supervision of analysis reports;
- d) preparation of actions to be taken in the case of contamination detection, according to the defined protocol;
- e) recording of analysis results performed.

Water quality verification shall be carried out through analytical control. An analytical plan that covers at least one annual analysis in each terminal point shall be established. This analysis shall include the parameters shown in [Table 2](#).

Table 2 — Analysis parameters

Type of water	Control	Parameters
Mineral water, thermal water, potable water ^a	Micro-biological	<i>Legionella pneumophilla</i>
		Total aerobes
		Total coliforms
		Enterococcus
		<i>Escherichia coli</i>
		<i>Clostridium perfringens</i>
		<i>Pseudomonas aeruginosas</i>
Potable water ^a from the water supply	Physical/chemistry	pH
		Temperature
		Conductivity
		Turbidity
		Free and bound chlorine
		Ammonium
		Copper
		Nickel
		Chromium
		Iron
Lead		
^a Only if water is not provided by a public source.		

All the results of the analysis shall be maintained in easily readable charts and kept for at least 4 years.

8 Service provision

8.1 General requirements

The medical spa shall provide general information including contact details, opening hours, treatment times, reception and booking service.

All information shall be updated periodically and also when changing some details in service provision. The information shall be given in a clear and easily understandable way.

A systematic control of entry to the medical spa shall be carried out.

The medical spa shall appoint someone responsible for ensuring that the service fulfils the level of service provision required by this document.

The treatment given to customers shall be respectful and formal, according to the courtesy rules.

8.2 Reception services

8.2.1 Booking service

Booking services for treatments shall conform with the following requirements:

- a) There shall be a reservation procedure identifying at least the name of the customer or organization making the reservation, a telephone number or email address, the treatment booked, the price of the service and the booking guarantee policy (i.e. cancelling, repayment conditions or new booking), considering the different booking methods, such as online or telephone.
- b) All booking requests shall be listed as soon as received and shall be confirmed within one working day. Any additional customer requests shall be also registered and the staff shall try their best to satisfy such requests.
- c) The confirmation shall be formalized in a reliable manner, including the booking conditions (e.g. prepayment, credit card, deposit), and provided to the customer.

For changes in bookings made by the medical spa, it shall inform the customer accordingly and justify the reasons for the change. Any unusual circumstances shall be reported to customers.

There shall be a registered file of all customers, preferably in electronic format. The filing procedure shall be documented.

The booking service should have various methods of communication to accommodate people with sensory disabilities.

8.2.2 Check-in service

Check-in services shall conform with the following requirements:

- a) The documentation relating to each customer is prepared prior to arrival.
- b) If the medical spa is unable to provide the services or packages reserved by the customers it shall be ready to offer an equivalent service.
- c) Customers shall be informed of the different rates for the services (individual treatments, global treatments, general guidelines, vouchers or packages for medical services and general services), emphasizing the fact that all medical services shall be prescribed by the doctor.
- d) Customers shall receive an induction tour of the facilities. Specific guidelines shall be given indicating the steps the customer shall follow for each treatment. Preferably, customers should be given an information note detailing the steps to follow.
- e) Necessary information related to treatment, including limitations and/or medical reminders, shall be delivered to the customers in a suitable way as part of the check-in service.
- f) The reception personnel shall report to customers any irregular circumstance that could directly affect customers and limit the service to be provided (e.g. maintenance work, reduction of opening hours, restrictions).

- g) There shall be good coordination between the reception area and the medical services so that medical appointments can be noted when checking in.
- h) Credit cards shall be promptly verified with discretion, if needed.
- i) The medical spa shall have a procedure to manage group check-in.

8.2.3 Communication with customers (calls and emails)

The medical spa shall define a procedure for responding to communication by, for example, telephone or email; this procedure shall include at least the following:

- operating hours for telephone services are at least the same as for treatment services;
- telephone calls, texts and emails are responded to promptly.

Staff should be able to communicate with people using various methods to accommodate persons with sensory disabilities.

8.2.4 Check-out

Invoices shall be detailed. Upon a customer's request, all receipts signed by the customer relating to the services used shall be provided.

8.3 Medical service

8.3.1 General requirements

A medical doctor shall always be present or readily available at the medical spa during the opening hours.

The medical doctor shall visit every customer when arriving at the medical spa, prior to the first treatment.

The customer shall be requested to fill out a form or test, so the medical doctor can evaluate the customer's health condition to be able to propose the treatment.

Customers shall be directed to the area required with their medical prescription note at the time established in the schedule.

Further appointments shall be made with the medical doctor to enable monitoring of progress.

8.3.2 Medical examination

The medical examination shall be carried out according to medical protocols.

It shall contemplate the following:

- definition of the prescribed therapeutic treatment;
- dismissal of contraindications and restrictions of the cure techniques and the medical spa treatment to be carried out.

These actions shall be covered in each customer's medical record.

Customers shall be informed and shall be asked to agree about treatments, risks and techniques prescribed.

The medical service shall arrange the intermediate evolution control procedures and establish the number of controls that shall be carried out depending on the type of pathology of each customer, the duration of the treatment, the characteristics of the treatment and the potential complications.

Once the treatment is completed, the medical services, when appropriate, shall carry out an assessment of the health treatment and write a report which will be handed to the customer. Such reports shall contain at least the following information:

- a) personal details;
- b) anamnesis;
- c) inspection;
- d) physical examination;
- e) results of all analysis;
- f) diagnosis judgement;
- g) performed treatment;
- h) contraindications and restrictions;
- i) evolution of results;
- j) date and doctor's signature.

8.3.3 Treatment manual

The medical manager of the medical spa shall produce and/or authorize the treatment manual, including information of all services and techniques.

This manual shall include at least the following:

- a) medical spa remedies employed;
- b) a list of the medical spa techniques employed:
 - parameters employed for each technique, such as temperature, time, pressure or amount of water;
 - equipment for guaranteeing the defined parameters.
- c) description of the practical application of each technique, indicating the total duration of the process and specifying the time for each step, before (customer's arrival), during (application of the technique) and after (cleaning the facilities), when appropriate;
- d) indications, contraindications and restrictions of each technique;
- e) a list of the existing facilities (which shall be duly signposted) for the application of the techniques.

8.4 Other services

For the services not included in this document and which are provided directly by the medical spa (shops or other services), the medical spa shall identify and define the provision requirements and prices. In any case, these services shall meet safety, cleanliness, hygiene and maintenance requirements.

9 Support processes

9.1 Marketing

The medical spa is responsible for managing the activities related to marketing. This includes the means used to inform people of the medical spa's services (e.g. webpages, leaflets, social media networks) and contracts with distribution channels (e.g. travel agencies, tour operators, booking offices, companies).

The materials used for promoting services (webpages, advertisements, leaflets) shall respond to truthful, verifiable information, avoiding wrong and/or misleading terms or images.

Contracts with distribution channels shall include at least the following:

- a) name of the medical spa with fiscal data and contract responsible;
- b) name of the distribution channel with fiscal data and contract responsible;
- c) contact details of the contract partner;
- d) date and validity of the contract;
- e) services contracted;
- f) booking conditions;
- g) prices of the services contracted;
- h) payment means;
- i) distribution costs;
- j) taxes;
- k) cancellation policy;
- l) accessibility of facilities and services, and the types of accessibility accommodations that can be provided.

9.2 Procurement and storage

The medical spa shall have a procedure to manage procurement activities, including requirements for purchases, authorizations of orders, and selection and assessment of providers.

All orders shall be recorded so that the correlation between requested and received products can be verified in terms of, for example, quantity and quality.

Expiry or "best before" dates for consumption of products shall be respected.

If necessary, the medical spa shall fix special timetables for the receipt of goods in such a way that this activity does not generate any disturbance to the customers.

A minimum stock of products shall be defined to ensure service provision, especially those products covering the catering offer.

Potentially hazardous products shall keep their original labels with safety information.

Special attention shall be paid to those products requiring specific storage conditions.

Access to the storage areas, if any, shall be restricted or controlled.

9.3 Environmental policy

The environmental policy of the medical spa shall take account of energy efficiency, reducing resource consumption, pollution reduction and recycling activities.

- a) Energy consumption: the medical spa shall develop actions aimed at improving energy efficiency, incorporating, for example, some of the following mechanisms: renewable energy, low-consumption appliances or components, presence detectors, clean energies (wind, solar, photovoltaic solar, biomass) or cogeneration energies and correct facilities insulation.

- b) Resource consumption: in provisioning activities, and depending on the structure and operational procedures of the medical spa, environmental criteria shall be incorporated, such as reducing packaging, promoting returnable packaging, and using biodegradable and easily recyclable products. The medical spa shall develop activities aimed at reducing water consumption, incorporating, for example, some of the following mechanisms: reducing water flow faucets, fluxometers, cistern capacity limitation, cell activation systems, timers, drop irrigation, using low-irrigation plants in gardens, hourly control, localized irrigation, garden redesign.
- c) Pollution reduction: effective management of waste shall be carried out. This shall include the avoidance of pollution in the disposal of liquids and in air emissions.
- d) Recycling activities: the medical spa shall support the classification of generated waste, facilitating the recycling or further use of such waste.

The medical spa shall inform the customer of those environmental improvement measures adopted.

9.4 Customer satisfaction

The medical spa shall have a system to periodically evaluate customer satisfaction (defining indicators to measure the level of satisfaction), to review complaints and to consider customer suggestions in order to improve the services provided. Records of these activities shall be kept.

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Annex A (informative)

Guidelines for characterization of natural healing waters (minimum values)

A.1 Characterization

Table A.1 can be used as a guideline for characterization of natural healing waters when no legislation is in force.

Table A.1 — Characterization of natural healing waters

Chemical elements	mg/l	mmol/l
Calcium (Ca ²⁺)	500	12,5
Magnesium (Mg ²⁺)	150	6,2
Iron bivalent (Fe ²⁺)	20	0,2
Lithium (Li ⁺)	2	0,29
Sulfate (SO ₄ ²⁻)	1 200	12,5
Bicarbonate (HCO ₃ ⁻)	1 300	21,3
Iodine (I ⁻)	1	0,01
Fluoride (F ⁻)	1	0,05
Sulphuric sulfur (HS ⁻ , H ₂ S, HS _x ⁻)	1	0,03
Carbon dioxide (CO ₂)	1 000	For drinking treatments: 22,5 For bathing purposes: 500
Radon (Rn)		666 Bq/l (18 nCurie/l)
Saline water		8,5 g chloride

A.2 Natural fluctuations of composition of natural healing waters

Due to natural changes in the substances, chemical composition and physical quality of healing waters, natural variations may occur in water (i.e. the individual mechanical, technical, physical and physicochemical properties of a mineral spring). Variations in the levels of mineral substances indicated in [Table A.1](#) defining the water should not exceed $\pm 20\%$ and for carbon dioxide $\pm 50\%$.

Impermissible variations in composition can occur if the technical conditions of mineral springs are not state-of-the-art or if mineral springs are irregularly used or overused. Variations are determined on the basis of a natural healing water analysis. Whether variations conform with the individual behaviour of a mineral spring and are justifiable for reasons of water protection should be decided by the technical assessment of the spring.