WHO BENCHMARKS FOR THE TRAINING OF UNANI MEDICINE
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Foreword

The World Health Organization (WHO) is currently implementing its 13th General Programme of Work (GPW13) to support countries in reaching all health-related Sustainable Development Goals (SDGs). GPW13 is structured around three interconnected strategic priorities: achieving universal health coverage; addressing health emergencies; and promoting healthier populations. These strategic priorities are supported by three strategic shifts: stepping up leadership; driving public health impacts in every country; and focusing global public goods on impact.

Traditional medicine has always had a role in this collective endeavour. The Declaration of Astana, renewed from the Declaration of Alma-Ata towards universal health coverage and the SDGs, reaffirms the role of traditional medicine in strengthening primary health care, a cornerstone of health systems, in pursuit of health for all. This has also been reflected in the WHO global report on traditional and complementary medicine 2019, in which 88% of WHO Member States acknowledge the use of traditional and complementary medicine in health care.

Taking note of the growing importance of traditional medicine in the provision of health care nationally and globally, WHO and its Member States have strived to explore ways to integrate, as appropriate, safe and evidence-based traditional and complementary medicine services within national or subnational health systems, as committed to in the Political Declaration of the High-level Meeting on Universal Health Coverage.

WHO aims to provide policy and technical guidance to Member States; promote the safe and effective use of traditional and complementary medicine through appropriate regulation of products, practices and practitioners; and support Member States in harnessing the contribution of traditional and complementary medicine to people-centred health care in implementing the WHO Traditional Medicine Strategy 2014–2023.

Setting norms and standards is a unique function of WHO. The normative work is driven by needs and could be translated into real impact in relevant countries through appropriate policy options. This series of benchmarks, covering various systems and interventions of traditional, complementary and integrative medicine, aims to provide a reference point to which actual practice and practitioners can be evaluated.

I am very pleased to introduce this series to policy-makers, health workers and the general public, and I firmly believe it will serve its purpose.

Zsuzsanna Jakab
Deputy Director-General
World Health Organization
Preface

Integrated health services are essential for the World Health Organization (WHO) in the implementation of its 13th General Programme of Work, which aims to support countries in achieving universal health coverage and the health-related Sustainable Development Goals. The overarching mission for the Department of Integrated Health Services is to accelerate equitable access to good-quality health services that are integrated and people-centred, and that can be monitored and evaluated.

WHO is unique in its mandate to provide independent normative guidance. Its normative products encompass a wide range of global public health goods, including norms and standards. It is therefore the primary role of the Department of Integrated Health Services to generate and produce relevant global goods. Key to improving its work in this area is ensuring global public health goods are driven by country needs and can deliver tangible impacts at the country level.

As of 2018, when 88% of WHO Member States acknowledged the use of traditional and complementary medicine, WHO’s support in evaluating the safety, quality and effectiveness of traditional and complementary medicine has continuously ranked in the top areas of need, according to the WHO global report on traditional and complementary medicine 2019.

WHO prioritizes normative products based on an assessment of demands. To address increasing needs and to drive impact in countries, this series of benchmarks captures the main systems and interventions of traditional, complementary and integrative medicine by setting up required norms and standards on training and practice.

These benchmarks documents have been prepared following existing WHO methodology and processes. They consider consumer protection and patient safety as core to professional practice and reflect the consensus of what the community of practitioners of traditional medicine disciplines considers to be reasonable practice in the respective discipline. They provide a reference point to which the practice and practitioners of traditional medicine can be compared and evaluated. These documents will support countries to establish appropriate legal and regulatory frameworks for the practice of traditional medicine. WHO will not only assess the quality of these normative products but also streamline systems and plans for monitoring and evaluation.

I am pleased to present this series of benchmarks and invite you to join us in measuring and documenting their impact.

Rudi Eggers
Director
Department of Integrated Health Services
World Health Organization
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<td>af‘āl</td>
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<td>diseases of breach of continuity</td>
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<td>ārkān</td>
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<td>arwāḥ</td>
<td>pneuma/subtle substances</td>
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<td>asbāb sitta ḍarūriyya</td>
<td>six essential factors</td>
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<td>awrām</td>
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<td>idrār</td>
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<td>‘ilāj bi‘l didd</td>
<td>antagonistic therapy/hetero-therapy</td>
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<td>‘ilāj bi‘l tadābīr</td>
<td>regimenal therapy</td>
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<td>īlām</td>
<td>pain induction</td>
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<td>imtilā</td>
<td>plethora, congestion or fullness of the body with proper or improper humours or fluids</td>
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<td>imtīla-i-maqāmī</td>
<td>local congestion</td>
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<td>istirkhā</td>
<td>flaccidity</td>
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<td>īstsqa‘ lahmī</td>
<td>oedema</td>
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<td>izāla-i-sabab</td>
<td>removal of aetiology</td>
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kayfiyat  condition, quality
maḍmaḍā  mouthwashing or rinsing
mālikhūliya  melancholia
mantiq  logic
mawālīd-i-thalātha  three origins, resources or kingdoms of nature (herbs, animals, minerals)
medicatrix naturae  power endowed by nature to every individual for self-preservation and to regulate normal functions; administrator, protector and healer of the body
mizāj  temperament
mujarrbāt  empirical findings
mukhaddirāt  anaesthetic
muqawwiyyāt  tonic
mutaʻaffin  with pus
mutaʻaffin qurūh-i-muzmina  infected chronic ulcer
nabd  pulse
naft al-dam  haemoptysis
nudj wa ishāl  concoction and purgation
nutūl  irrigation or wet fomentation
pāshoya  footbath
qay  vomiting
quwā  faculties
quwwat-i-haywāniyya  vital faculty
quwwat-i-nafsāniyya  psychic faculty
quwwat-i-tabi‘iyya  physical faculty
quwwat-i-tanāsuliyya  reproductive faculty
rūḥ-i-nasīm  light gaseous substance in organs and fluids of the body that performs various important functions; obtained from the interaction of inspired air with pneuma
sū‘-i-mizāj māddī  derangement of temperament due to any matter or humour
sū‘-i-mizāj sāda  simple derangement of temperament
tabiyat  healing power of nature
tadhīn  oiling
ta‘dīl-i-mizāj  moderating and balancing the temperament
tarahhul  laxity of the body
ta‘riq  sweating
tashannuj  spasm
Introduction

Why this benchmark?

In 2010 the World Health Organization (WHO) published *Benchmarks for training in Unani medicine*. This presented what professional experts and health regulators considered to be appropriate training programmes for Unani medicine practitioners.

Various backgrounds of Unani medicine service providers were addressed inadequately in this document, however, and there is a lack of a defined career pathway for Unani medicine providers.

Based on the needs of Member States, the updated benchmarks aim to reduce these gaps by establishing required learning outcomes, contents and structures for each category and level of Unani medicine service providers, so that individual practices and providers can be compared, evaluated and accredited.

This document will join *WHO benchmarks for the practice of Unani medicine* to form an integral part of the serial benchmarks, targeting key modalities of traditional medicine intervention and contributing to the establishment of a reference toolkit for countries.

How was this benchmark prepared?

This document followed the established methodology of WHO to develop benchmarks in traditional, complementary and integrative medicine. To substantiate the update, WHO identified experts to prepare a “need and objectives note” based on a desk review of available information on formal licensure and established national standards and guidelines to assure good-quality health-care delivery of Unani medicine.

Data from 26 Member States, including the 8 that regulate Unani practitioners, were reviewed.¹ Information from Argentina, Australia, Bahrain, Bangladesh, Brazil, Colombia, Cuba, Germany, Hungary, India, Italy, Malaysia, Mauritius, Nepal, Netherlands, Oman, Pakistan, Qatar, Serbia, Singapore, South Africa, Sri Lanka, Switzerland, the United Arab Emirates, the United Kingdom of Great Britain and Northern Ireland and the United States of America were examined. The information was collected from relevant websites of ministries of the respective Member States, and from direct communication with officials and experts associated with these Member States. We examined the relevant information on existing benchmarks, legislation, national standards and guidelines available in these countries.

From the information we reviewed, we could not find evidence of an existing benchmark covering the objectives holistically. We found considerable diversity of the practice, its prevalence and acceptance among the Member States. It became clear that the WHO benchmarks document should take into account this diversity and suggest regulations for practice, products and training, keeping in mind the different levels of social acceptance, community awareness and uptake, and availability of resources for practice across the Member States.

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We further scoped the Google Scholar, PubMed and AYUSH research portals to identify information on existing publications for Unani medicine that would substantiate and support the development of the Unani medicine benchmark documents. Using a combination of “safety”, “quality” and “trial” along with “Unani” presented more than 71 300 references. Owing to the broad nature of the enquiry, we further refined the search into two categories.

One category identified the publications related to “benchmarks”, “regulations”, “quality”, “practice” and “training”. Filtering out duplicates and those not specifically relevant to Unani practice or training provided information on 469 publications. After studying the abstracts, we narrowed this down to 122 publications to be read in detail. Of these, 34 publications highlighted the need for a practice benchmark document for Unani medicine practice, and 53 a benchmark document for the training of Unani medicine. A total of 57 and 86 publications, respectively, provided insights into the content requirements of practice and training benchmark documents. Fifty-five publications identified regulatory gaps and requirements, and 64 provided inputs on quality requirements of Unani medicine practice or training.

The second category refined the information for “Unani and safety” and identified 2093 publications after exclusion of duplicates. The data were further cleaned using a combination of “medicine”, “drug” or “trial” as additional filters. This provided information on 809 publications. Another filtration added the terms “randomise/ze” or “safety” in the title or abstract of the publications. In this category, we identified and examined in detail 191 publications that were most relevant to the practice and training benchmarks of Unani medicine.

The desk review provided the required inputs to finalize the objectives and outline of contents of the updated document. The review concluded that the updated benchmarks for training should address the types of training for different categories of the Unani health workforce to support the various levels of practice; provide requirements on competency-based knowledge and skills; frame content and structure for different training programmes covering key elements of safety, especially safe medicine practices; and cover aspects of quality control and safety of clinical practices.

The first updated draft was prepared based on the information gathered and directions identified through the desk review. This draft was presented to the expert consultation meeting for discussion. A total of 49 experts from 22 countries across the 6 WHO regions joined the expert consultation meeting. After two days of discussion on the scope, structure and content of the draft document, the meeting was concluded with consensus and advice on further improvement, which guided production of the second draft. The second draft was then reviewed by invited experts, who contributed to the third draft. This draft marked the conclusion of the consulting process and became the last technical version of the benchmark before formatting and printing. 

What does this benchmark cover?

This document is structured in four parts:

- Background: gives a brief account about Unani system of medicine and objectives of the document.
- Training of Unani medicine practitioners: gives training requirements for Unani medicine practitioners and associate Unani medicine service providers.
General considerations: presents the considerations and requirements of relevant aspects in the training of Unani medicine.

Safety issues: emphasizes the key elements of safety in the training of Unani medicine.

These four parts constitute a complete set of benchmarks for the training of Unani medicine.

Who is this benchmark for?

By setting norms and standards, this document helps to address the issues related to minimum training requirements for good-quality Unani medicine services. It offers a useful reference point to evaluate Unani medicine service providers, which will benefit policy-makers, health workers, education providers and the public in general.

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Unani medicine is a science and art of healing. It originated in Greece and is primarily based on the principles propounded by the ancient Greek practitioners Hippocrates and Galen. It developed and flourished in the Islamic civilization. The Arab and Persian kingdoms and culture had a great influence in its development. It reached the Indian subcontinent around the eighth century, where it was further enriched. It is now widely practised and researched as a fully fledged system of medicine with a large network of education, clinical practice, research and training. Unani medicine is also known as Unani Tibb and Graeco-Arab medicine.

Unani medicine is based on unique philosophies and logically structured doctrines. The popularity and demand of Unani medicine has been increasing globally because of its holistic approach to preventive, promotive and curative aspects of health care. Unani medicine is popular in South Asia, and its presence is growing in other parts of the world. It is well established and part of the mainstream system of medicine in Bangladesh, India, Pakistan, South Africa and Sri Lanka. In some other countries, including the Islamic Republic of Iran, Malaysia and the United Arab Emirates, it is a regulated system of medicine.

Unani medicine encompasses a wide range of therapeutic practices, including regimenal therapy ('ilāj bi'l tadābîr), diet therapy ('ilāj bi'l ghidhā'), pharmacotherapy ('ilāj bi'l dawā') and surgery ('iāj bi'l yad). Unani pharmacotherapy uses approximately 90% herbal ingredients; the rest is composed of ingredients of animal and mineral origin. Single-ingredient medicines or their combination in raw form are preferred over compound formulations.

This document provides benchmarks for training in Unani medicine. It describes the standards of training for a practitioner of Unani medicine. It also provides information on training programmes for associated staff of Unani medicine practice.

This document may be used by policy-makers and regulatory authorities of Member States to establish appropriate training programmes in Unani medicine to assure its good-quality practice. It also serves as a reference for national authorities to establish systems of training, examination and licensing to support the qualified training and practice of Unani medicine.

1.1 Origin and principles of Unani medicine

1.1.1 Historical background

Unani medicine amalgamated the knowledge of contemporary systems of traditional medicine. It originated in Greece in the fifth century BCE. This system, originally called Galenics, was later known as Unani Tibb, from the Arabic *yunan* (“Greek”) and *tibb* (“medicine”). Over the subsequent centuries, a number of Arab, Persian and Indian scholars enriched the system (1).

Many authoritative texts on Unani medicine emerged from Central Asia, Egypt, India, Iraq, the Islamic Republic of Iran and Spain during the eighth to twentieth centuries. In addition to the system’s standard texts, there are thousands of books describing empirical findings (*mujarrbât*). *Firdaws al-hikmat* (by Rabbn Tabri, 838–870), *Kāmil al-ṣanā‘a* (by Ali Ibn Abbas al-Majoosi, 930–994), *Al-hāwī fi'l tibb* (by Abu Bakr Mohammad bin Zakariya Razi (Rhazes), 854–925), *Al-qānūn fi'l ṭibb* (*Canon of Medicine*) and *Kitāb al-shifā*’ (*Book of Healing*) (by Ibn-e-Sina (Avicenna), 980–1037) and *Dhakhūra khawārázm shāhī* (by Ismail Jurjani, 1040–1136) are the most comprehensive and rationally systematized standard texts providing the basis for the practice of Unani medicine (2).
The Unani medicine system was further enriched and contributed to by Indian physicians. During the Mughal period, Unani medicine was promoted as a mainstream system by Hakim Akbar Arzani (d. 1772). In pre-independent India, it was further nurtured by Unani physicians such as Hakim Mohammad Azam Khan (1815–1902) and Hakim Ajmal Khan (1868–1927). In post-independent India, the system was developed by Hakim Mohammad Kabiruddin (1894–1976) and Hakim Abdul Hamid (1908–1999) (3).

1.1.2 Fundamentals of Unani medicine

According to Unani medicine, the factors of existence or working principles of the body (umūr al-tabī‘īyya) are the seven essential natural components responsible for the existence of the body and maintenance of health. These factors are the elements (arkān), the temperament (mizāj), the humours (akhlāṭ), the organs (a‘ḍā’), the spirits (arwāḥ), the faculties (quwā) and the functions (af‘āl). Imbalance in any of these factors may lead to disease (4).

There are four fundamental qualities (kayfiyat) – hot, cold, dry and wet – of the four cosmic elements – fire, air, earth and water. The four fundamental qualities are reflected in the general characters of the entire cosmos and in all natural entities. The interaction of these four elements and fundamental qualities produces various states, which is known as the temperament (mizāj) of the individual. Every human being, every disease, every medicine and every diet has its own temperament, which must be taken into account when practising Unani medicine (5–7).

Hippocrates (Buqrat) laid down the concept of humours (akhlāṭ; singular khilāṭ). This presupposes the presence of four humours in the body – blood (dam), phlegm (balgham), yellow bile (ṣafrā’) and black bile (sawdā) – which reflect the four elements associated with specific temperaments and which comprise the physical body and the subtle pneuma. Each humour has its own temperament: blood is hot and moist (sanguine); phlegm is cold and moist; yellow bile is hot and dry; and black bile is cold and dry (4).

Predominance of any humour determines the characteristics of a person and the clinical features of a disease. Hence, people and diseases are classified as sanguineous (damawi), bilious (ṣafrāwī), phlegmatic (balghami) or melancholic (sawdawi). If the four main humours and the four fundamental qualities are in a state of mutual equilibrium, the person is considered healthy (4).

The body functions are controlled through the synchronized functioning of the four faculties (quwā) of the body (8):

- The psychic faculty (quwwat-i-nafsāniyya) performs intellectual, sensory and motor functions in the body (all the functions related to the central and peripheral nervous systems).
- The vital faculty (quwwat-i-ḥaywāniyya) provides vitality to the organs, such as the brain, heart, lungs and liver, through the circulation of the blood. The organs associated with this faculty are considered to be the vital organs.
- The physical faculty (quwwat-i-tabī‘īyya) consists of the liver and alimentary system and deals with digestive, metabolic and excretory processes of the body.
- The reproductive faculty (quwwat-i-tanāsuliyya) ensures propagation and preservation of the species and consists of reproductive and related organs that control reproductive functions.

Unani medicine describes four stages of digestion, which may be interpreted as metabolic activities (8):

- The first stage of digestion occurs in the alimentary canal, where food is converted into chyme and chyle.
- The second stage of digestion occurs in the liver, where chyle is converted into humours (akhlāṭ).
- The third stage of digestion takes place in the blood vessels, where humours (akhlāṭ) interact with the pneuma (rūḥ-i-nasim).
The fourth stage of digestion takes place in the organs, tissues and cells, where humours (akhlāṭ), nutrients and pneuma are used up.

Unani medicine recognizes three states of the body (4):

- State of health: the body is physically and functionally perfect.
- State of disease: the body is physically or functionally not perfect.
- State of neither health nor disease: there is neither complete health nor disease but a state in between health and disease (e.g. condition of an elderly or convalescent person).

1.1.3 Disease and diagnosis

Unani medicine considers that diseases arise from different forms of imbalance in qualities or structural abnormalities and are characterized at different levels, such as abnormal temperament (ṣū‘-i-mizāj), abnormal structure (ṣū‘-i-tarkīb) or discontinuity (tafarruq-i-ittisāl) (8).

In disease conditions, fundamental imbalances in temperament (mizāj), humours (akhlāṭ), faculties (quwā) or functions (af‘āl) and structural abnormalities are reflected as general clinical characters. The specific disease may be diagnosed by examination of the pulse (nabāl), specific clinical symptoms, and inspection of the urine (bawl) and stool (barāz) (8).

Fundamental imbalances are characterized on the basis of the pathological alteration in the quality or quantity of a humour (khilīṭ). Structural abnormalities are differentiated on the basis of the organ affected and the three types of abnormality involved – abnormality of substance, abnormality of function and abnormality of character. Diseases are differentiated on the basis of various attributes, one common basis being the organ affected (8).

Thus, a disease can be analysed based on the fundamental imbalance, the structural abnormality and the particular form it takes.

1.1.4 Unani medicines

Unani medicines comprise herbs, herbal materials, herbal preparations and finished herbal products that contain parts of plants, other plant materials, natural organic or inorganic active ingredients of animal or mineral origin (mawālīd-i-thalātha), and combinations thereof as ingredients.

Unani medicine are prepared in several dosage forms, such as powders (safūf), decoctions (joshānda), infusions (khīsānda), syrups (sharbat), essences (araq), pills (ḥabb) and tablets (qurṣ). Many books with detailed descriptions of single-ingredient medicines are available. Pharmacopoeia or formulary (qarābādīn) with rich descriptions of compound (multiple-ingredient) medicinal preparations and detailed information on ingredients, temperament, pharmacological actions, doses, indications and contraindications are available.

1.1.5 Management (prophylaxis and therapeutics)

Most pathological conditions are prevented or cured by balancing the pathologically altered, or likely to be altered, quality or quantity of humours. This is done by modifying the diet and lifestyle, administering appropriate regimens, or using single-ingredient or compound medicines. By focusing on this corrective approach towards imbalances, Unani medicine can holistically treat a disease at the root level and provide a radical cure with minimal or no adverse effects (8).

For prophylaxis, Unani medicine uses the approach of maintenance of health (ḥilz-i-sihbat), management of suboptimal health (tadābīr abdān-i-da‘īfa) and prevention of disease (ḥilz mā taqaddum).

Unani medicine recognizes diet, lifestyle and factors of external and internal environment as the fundamental basis for maintenance of health. The perfect health of an individual is maintained and ensured by managing these factors to be in harmony with the person’s temperament:
Moderation of the six essentials factors (asbāb sitta ḍarūriyya) is an important aspect of Unani medicine for maintaining good health and preventing diseases:

- Ambient air and environment (hawā-i-muhīṭ): air is the most crucial factor for life. It helps in the production and maintenance of pneuma, the source of vitality. Air is the medium of most of the external factors affecting life and health. Unani medicine uses air in prevention and treatment by taking into account the seasonal variations in air.
- Food and drink (mākul wa mashrūb): intake of fresh and nutritious food and drink without contamination is advised.
- Bodily movement and repose (ḥarakat wa sukūn badānī): optimum movement and rest are essential for positive health.
- Psychic movement and repose (ḥarakat wa sukūn nafsānī): optimum mental activity and repose are necessary. Happiness, sorrow, anger and worry are all necessary in moderation to maintain good health.
- Sleep and wakefulness (nawm wa yaqzā): optimum wakefulness and sleep are necessary for good health. Sleep is an ideal form of rest for the body and mind.
- Evacuation and retention (istifrāgh wa ihtibās): waste products must be evacuated from the body through different processes, such as defecation, urination or sweating. Likewise, what is required by the body must be retained.

Adoption of certain regimens (tadābīr) at regular intervals is conducive to the maintenance and promotion of health and the prevention and cure of many diseases.

Unani medicine strengthens the healing power of nature (ṭabī’at-medicatrix naturae) by using single-ingredient and compound medicines, dietary regimens and lifestyle modifications. When these aspects of prophylaxis are followed, they improve the quality of life. In any chronic disease or disability where quality of life is compromised, adhering to these prophylactic measures helps to some extent.

Principles of treatment according to different pathologies are (8):

- removal of the causative factor (izāla-i-sabāb);
- hetero-therapy or antagonistic therapy (‘ilāj bi’l ǧidd) – treatment with a medicine with the opposite temperament to the disease;
- normalization of the abnormal temperament (ta’dīl-i-mizāj);
- evacuation of morbid matter (mawād-i-fāsida) by various modes of therapy and through different routes (tanqiya-i-mawād).

Unani medicine also treats specific diseases with medicines discovered purely by empirical means without reference to the above principles. These medicines are said to act by their specific or special characteristics (ṣūrat al-naw’īyya).

The methods of treatment are (8):

- diet therapy (‘ilāj bi’l ghidhā’) – modification and specification of the person’s diet;
- regimenal therapy (‘ilāj bi’l tadābīr), including lifestyle modifications;
- pharmacotherapy (‘ilāj bi’l dawā’);
- surgery (‘iāj bi’l yad).
Training in the medical profession is of profound importance. Education maintains, develops and increases the knowledge, skills and performance of medical professionals. Medical practitioners must remain up to date with the latest developments within their specialties to appropriately manage the day-to-day challenges they come across in their practice.

The practice of Unani medicine requires a proper system for training and licensing. Benchmarks for training consider the:
- level of education required for a person to undertake training;
- content of the training;
- method of the training;
- roles and responsibilities of the future practitioner.

Suggested durations for the Unani training programmes described here are given in Annex 2.

Training programmes for Unani medicine practitioners are categorized into:
- type I basic training programmes, subdivided into type I-A, type I-B and type I-C programmes;
- type II training programmes;
- type III specialty training programmes;
- type IV super-specialty training programmes.

### 2.1 Type I basic training programmes

#### 2.1.1 Type I-A basic training programme in Unani medicine for traditional healers

This training programme is designed for people who have practised Unani medicine but have little or no institutional training in Unani medicine.

Eligibility requirements:
- senior secondary school or equivalent (12 years of schooling); and
- five years clinical experience working with a Unani practitioner; and
- eligibility test for practical knowledge:
  - written test;
  - oral test.

Course curriculum:
- Basic subjects:
  - history of Unani medicine (*tārīkh al-tib*);
  - principles of Unani medicine (*umūr al-ṭabi‘yya*);
  - anatomy (*tashrīḥ al-badan*);
  - physiology and biochemistry (*afʿāl al aʿdhāʿ wa ilm al ḥayāti kīmya*).
• Preclinical subjects:
  • basics of pharmacology (*kulliyāt-i-adwiya*);
  • single-ingredient and compound medicines (*adwiya mufrada wa murakkaba*);
  • Unani pharmacy (*‘ilm al-ṣaydala*);
  • pathology and microbiology (*‘ilm al-amrād wa jarāthim*);
  • clinical methods (*sarīriyāt*);
  • preventive and social medicine (*taḥaffuzi wa samāji ṭib*);
  • medical jurisprudence (*ṭib al-qanūn*);
  • toxicology (*‘ilm al-samūm*).

• Clinical subjects:
  • internal medicine (*mu‘alajāt*);
  • regimenal therapies (*‘ilāj bi’l tadābīr*);
  • obstetrics and gynaecology (*amrād al-niswān wa ‘ilm al-qabālāt*);
  • paediatrics (*‘ilm al-atfāl*);
  • otorhinolaryngology (*amrād al-udhun, anf-o-ḥalq*);
  • ophthalmology (*amrād al ‘ayn*)
  • basic life support skills.

### 2.1.2 Type I-B basic training programme in Unani medicine for paramedical science graduates

This training programme is designed to enable people with previous health-care qualifications in paramedical sciences (that is, people other than practitioners who work as health service providers, such as nurses, pharmacists, laboratory technicians and community health workers) from recognized institutes to add knowledge of Unani medicine to their existing skills.

**Eligibility requirements:**

• bachelor’s degree in paramedical science;

The main objective of this programme is to use the trainee’s knowledge and experience as a foundation to impart new skills in Unani medicine. The training provides knowledge on the fundamentals of Unani medicine, pharmacology and therapeutics that are essential to enable the trainee to undertake practice in Unani medicine.

**Course curriculum:**

• Basic subjects:
  • history of Unani medicine (*tarikh al-ṭib*);
  • principles of Unani medicine (*umūr al-ṭabi’iyya*);
  • pharmacognosy (*‘ilm al-adwiya*);
  • Unani pharmacy (*‘ilm al-ṣaydala*);
  • pathology and microbiology (*‘ilm al-amrād wa jarāthim*);
  • clinical diagnostics (*usūl-i-tashkhiś wa sarīriyāt*).

• Clinical subjects:
  • internal medicine and therapeutics (*mu‘alajāt*);
regimenal therapies (‘ilāj bi’l tadābir);
• paediatrics (‘ilm al-atfāl);
• obstetrics and gynaecology (amrāḍ al-niswān wa ‘ilm al-qabālāt);
• otorhinolaryngology (amrāḍ al-udhun, anf-o-halq);
• ophthalmology (amrāḍ al ‘ayn);
• basic life support skills.

2.1.3 Type I-C basic training programme in Unani medicine for doctors of other systems of medicine

This training programme is designed to enable people with previous medical training to add the practice of Unani medicine to their existing skills.

Eligibility requirements:
• bachelor’s degree in any recognized system of medicine.

The main objective of this programme is to use the trainee’s knowledge and experience as a foundation to impart new skills in Unani medicine. The training provides knowledge on the fundamentals of Unani medicine, pharmacology and therapeutics that are essential to enable the trainee to undertake practice in Unani medicine.

Course curriculum:
• Basic and preclinical subjects:
  • history of Unani medicine (tarikh al-tib);
  • principles of Unani medicine (umūr al-ṭabi’iyya);
  • Unani pharmacology (‘ilm al-adwiya);
  • Unani pharmacy (‘ilm al-saydala);
  • pathology and microbiology (‘ilm al-amrāḍ wa jarāthīm);
  • Unani clinical diagnostics (usūl-i-tashkhiṣ wa sarīriyat).
• Clinical subjects:
  • internal medicine (mu’alajāt);
  • regimenal therapies (‘ilāj bi’l tadābir);
  • paediatrics (‘ilm al-atfāl);
  • obstetrics and gynaecology (amrāḍ al-niswān wa ‘ilm al-qabālāt);
  • otorhinolaryngology (amrāḍ al-udhun, anf-o-halq);
  • ophthalmology (amrāḍ al ‘ayn);
  • basic life support skills.

2.2 Type II training programme

The aim of this training programme is to train people with no previous medical knowledge or experience to become Unani practitioners with the necessary knowledge and skills to practise Unani medicine. After completing the training, these practitioners can practise as Unani health-care providers at the primary level; they can practise independently or associated with health-care centres or hospitals.
Eligibility requirements:

- senior secondary school or equivalent (12 years of schooling).

Course curriculum:

- Basic subjects:
  - history of Unani medicine (tarikh al-ṭib);
  - principles of Unani medicine (umūr al-ṭabi‘iyya);
  - anatomy (tashrīḥ al-badan);
  - physiology and biochemistry (af'āl al a‘ḍā‘ wa īlm al ḥayāti kimya);
  - bioinformatics;

- Preclinical subjects:
  - basics of pharmacology (kulliyāt-i-adwiya);
  - single-ingredient and compound medicines (adwiya mufrada wa murakkaba);
  - Unani pharmacy (‘īlm al-ṣaydala);
  - pathology and microbiology (‘īlm al-amrāḍ wa jarāthīm);
  - clinical diagnostics (usūl-i-tashkhis wa sarīriyāt);
  - preventive and social medicine (taḥaffūzi wa samāji ṭib);
  - medical jurisprudence (ṭib al-qanūn);
  - toxicology (‘īlm al-samūm).

- Clinical subjects:
  - internal medicine (mu‘alajāt);
  - regimenal therapies (‘ilāj bi‘l tadābir);
  - obstetrics and gynaecology (amrāḍ al-niswān wa ‘īlm al-qabālāt);
  - paediatrics (‘īlm al-atafāl);
  - otorhinolaryngology (amrāḍ al-udhun, anf-o-ḥalq);
  - ophthalmology (amrāḍ al ‘ayn);
  - surgery (jarāhiyāt);
  - basic life support skills.

2.3 Type III specialty training programme

This programme may be started in all disciplines of Unani medicine. It is designed for type II practitioners of Unani medicine seeking higher education or specialization in any of the clinical or non-clinical fields of Unani medicine, including internal medicine (mu‘alajāt), pharmacology (‘īlm al-adwiya), Unani pharmacy (‘īlm al-ṣaydala), and obstetrics and gynaecology (amrāḍ-i-niswān wa qabālāt).

Eligibility requirements:

- type II practitioner.

The programme consists of three parts:

- theoretical teaching;
practical training in institutions, hospitals, specialized clinics or laboratories;
- dissertation, thesis or research project.

The structure of this three-year programme is divided into three sections:
- preliminary examination;
- final examination;
- dissertation or thesis.

An example course structure could be as follows:
- Subjects for preliminary examination:
  - research methodology and biostatistics;
  - clinical biochemistry and applied genetics;
  - principles of diagnosis and treatment (usūl-i-tashkhiṣ wa tajwīz);
  - regimenal therapies (‘ilāj bi’l tadābir).
- Subjects for final examination:
  - diseases of the nervous system, psychiatric diseases and diseases of the endocrine systems (amrād-i-nizām-i a’šāb, nafsāniya wa ghudad-i-qaṣānātī);
  - diseases of the respiratory, circulatory and haematopoietic systems and lymph nodes (amrād-i-nizām-i-tanaffus wa dawrān-i-khūn, tawlīd-i-dam, ghudadelyymphavia);
  - diseases of the digestive and urogenital systems (amrād-i-nizām-i-hadm, bawl wa tanāsūl);
  - infectious diseases, fevers, and diseases of the skin and joints (amrād-i-muta’addiya, ḥummiyāt, jild wa mafāsil).
- Submission of dissertation or thesis, including publication in peer-reviewed journals.

Courses for other disciplines may be designed accordingly.

2.4 Type IV super-specialty training programme

This programme is designed for type III practitioners of Unani medicine and other allied health sciences. The objective is to promote interdisciplinary collaboration and research in Unani medicine. The programme may be undertaken in any discipline of Unani medicine.

Eligibility requirements:
- master’s degree or equivalent degree in Unani medicine, other medical discipline or allied health sciences from a recognized educational institution.

These training programmes may address a specific skill set or a logical combination of them, and accordingly they vary in duration and content. A Type IV super-specialty training programme may be 100% practice-oriented, or research-oriented with hands-on supervised practice with senior faculty as the mode of training. There is considerable freedom for the academic authority to decide on the syllabus, curriculum and duration of the training programme. Where appropriate and practical, a practitioner with the prescribed eligibility may have the provision to take this training in-career and advance to become a specialist in a specific area of Unani medicine.
2.5 Training programmes for associated staff in Unani medicine

2.5.1 Unani therapist

Unani therapists assist and support Unani medicine practitioners in routine clinics at primary- and secondary-level facilities. They are not eligible for independent clinical practice.

Eligibility requirements:
  • senior secondary school or equivalent (12 years of schooling).

The training of the Unani therapist will be given to educate them to understand the modes of various regimenal therapies (ilaj bil tadbeer), their techniques and procedures, general precautions, safety measures to prevent infection, and sterilization of equipment and instruments (wherever necessary). They will also be given general introductory information of fundamentals of Unani medicine (kulliyat-e-tib) anatomy, physiology, pharmacology and principles of treatment.

Course curriculum:
  • fundamentals of Unani medicine (kulliyat-e-tib);
  • anatomy and physiology (tashreeh wa manafeul aza);
  • preventive and social medicine (tahaffuzi wa samaji tib-asbab-e-sitta zaruriya) and general principles of prevention in Unani medicine;
  • single-ingredient medicines, Unani pharmacy and compound medicines (adwiya mufrada, ilmul saidla and adwiya murakkaba);
  • elementary Arabic, Persian or Urdu according to the Member State’s requirements;
  • principles of treatment (usool ilaj);
  • Regimenal therapy (ilaj bil tadbeer) – paper I (basic level procedures);
  • regimenal therapy (ilaj bil tadbeer) – paper II (advanced level procedures);
  • practical training in performing various modes and regimens in a clinical establishment or hospital;
  • antiseptic measures and sterilization of equipment and materials;
  • communication skills;
  • ethical considerations in patient care.

2.5.2 Unani pharmacist

Unani pharmacists assist Unani medicine practitioners and work as medicine dispensers. They are not eligible for independent clinical practice.

Eligibility requirements:
  • senior secondary school or equivalent (12 years of schooling).

Training includes single-ingredient and compound drugs, methods of Unani pharmacy, terminology of Unani pharmacy, dispensing, safety measures to prevent infection and storage.

Course curriculum:
  • fundamentals of Unani medicine and principles of pharmacology (kulliyat-e-tib wa kulliyat advia);
  • anatomy and physiology (tashreeh wa manafeul aza);
  • single-ingredient medicines (adviya mufradah);
  • social medicine and pharmaceutical jurisprudence;
general preventive and social medicine in Unani perspective;
identification and classification of poisons and poisonous medicines used in Unani medicine, general diagnosis, management of poisoning, and related information;
elementary Arabic, Persian or Urdu according to the Member State’s requirements;
Unani pharmacy (ilmul saidla);
compound medicines (advia murakkaba);
storage and management of medicines;
hospital and clinical pharmacy;
communication skills.

2.5.3 Unani nurse

Unani nurses assist Unani medicine practitioners in Unani facilities and work under the guidance and instructions of Unani medicine practitioners. They are not eligible for independent clinical practice.

Eligibility requirements:
- senior secondary school or equivalent (12 years of schooling).

The objective of the training is to assist Unani practitioners in inpatient and outpatient care of patients. Unani nurses work under the guidance and instruction of Unani practitioners for the prevention and management of diseases in clinical establishments.

Course curriculum:
- fundamentals of Unani medicine (kullilyat-e-tib);
- anatomy and physiology (tashreeh wa manafeul aza);
- preventive and social medicine (tahaffuzi wa samaji tib-asbab-e-sitta zaruriya) and general principles of prevention in Unani medicine;
- principles of treatment (usoole ilaj);
- practical training in performing various modes and regimens in a clinical establishment or hospital;
- introduction to regimenal therapy (ilaj bil tadbeer nazari);
- regimenal therapy practice (ilaj bil tadbeer amali) (procedures and practice);
- elementary Arabic, Persian or Urdu according to the Member State’s requirement;
- single-ingredient medicines and compound medicines (adwiya mufrada wa murakkaba);
- terminology related to Unani medicines, dispensing and procedures;
- use of antiseptic measures and sterilization of equipment and materials;
- communication skills;
- ethical considerations in nursing care;
- general information and practical training to support the care of patients in hospital and patients who are bedridden.

The practical training of Unani nurses should be undertaken in a Unani hospital with outpatient and inpatient facilities.
2.5.4 Unani educators and health promoters

Unani educators and health promoters work to promote Unani medicine and create awareness about individual health care through Unani medicine.

Eligibility requirements:

- senior secondary school or equivalent (12 years of schooling).

Course curriculum:

- fundamentals of Unani medicine (kullilyat-e-tib);
- anatomy and physiology (tashreeh wa manafeul aza);
- single medicines and compound medicines (adwiya mufrada wa murakkaba);
- communication skills;
- preventive and social medicine (tahaffuzi wa samaji tib-asbab-e-sitta zaruriya) and general principles of prevention in Unani medicine;
- principles of treatment (usool-e-ilaj), including diet therapy (ilaj bil ghiza) and lifestyle modifications;
- regimenal therapies (ilaj bil tadbeer);
- ethical considerations in patient care.
3 General considerations

3.1 Syllabus, curriculum and medium of instruction

Specific details of the syllabus and curriculum, including the language and medium of instruction, the duration of the training programme, the distribution of subjects across the semesters or years of study, the scheme of examination, and the scheme of practical training and internship, may be decided by Member States according to national requirements and education regulations and systems.

3.2 Other considerations

When adapting this document to a Member State’s national situation, needs and priorities, the training programme should:

- support social and cultural aspects of the Member State and be open to any necessary inclusions and alterations in the details of the programme to best integrate with the needs and priorities of the Member State;
- be streamlined to the prevalent and pertinent laws and regulations of the Member State;
- be open to integrating new medical and health-care skills into the historical, traditional and alternative therapeutic practices of the region;
- integrate traditional, complementary and alternative systems of medicine into the health system appropriately, for the benefit of the population of the region;
- bring the benefits of safe and effective health care closer to the population of less developed communities in an integrated manner;
- include necessary aspects of training to facilitate monitoring, data collection, analysis and impact assessment;
- include necessary aspects of training to facilitate research and evidence-based practice of Unani medicine.
4.1 Safety considerations in Unani medicine practice
Training in Unani medicine should impart knowledge and skills related to:

- professional competence for regimenal therapy (‘ilāj bi’l tadābīr);
- safety, efficacy and quality of medicines and medicinal products used;
- compliance with professional codes of conduct, etiquette and medical ethics.

Unani medicine practitioners should be trained in:

- recognition and management of hazardous materials;
- recognition of potential adverse events due to medicines and medicinal products used in Unani practice;
- waste management processes;
- infection prevention and control measures;
- special safety concerns for individual tadābīr;
- the nine WHO Patient Safety Solutions (9).

4.2 Patient safety
Due care is required during the practice of Unani medicine to ensure safety of patients and risk management. Safety issues related to medicines should be appropriately reported through the pharmacovigilance systems. Safety concerns may be related to:

- adverse effects of herbal ingredients;
- allergic reactions or cardiotoxic, hepatotoxic, nephrotoxic, irritant or purgative effects causing adverse effects on the hormonal or central nervous system;
- medicines containing metals, minerals or poisonous substances;
- drug–drug interactions;
- drug–food interactions;
- medicinal or therapeutic incompatibility;
- use of equipment and tools.

4.3 Waste management
Training should be given in the proper collection and segregation of different types of waste in colour-coded containers, storage, and transportation to the site of treatment or disposal.

Waste management training should be done according to the regulations, guidelines and provisions of the Member State.
4.4 Infection control and prevention

Training should be given in appropriate hand hygiene and necessary steps implemented in Unani practice. Detailed guidelines are published by WHO (10). Training should include:

- use of appropriate antiseptic and disinfectant measures and careful handling of infected patients;
- identification of potential risks of contamination;
- challenges and constraints in prevention and control of infection in Unani practice.

Special attention should be given to provide appropriate training in (11):

- safe surgical and intervention processes for invasive interventions;
- use of disposable instruments such as surgical blades and needles for invasive procedures to avoid possibility of infection;
- safe disposal of such instruments;
- appropriate cleaning and sterilization processes for reusable instruments and equipment.

For more information, see WHO benchmarks for the practice of Unani Medicine (12).
References

Bibliography


Annex 1. Essential knowledge and skills for Unani medicine practice

The Unani medicine practitioner should have the required knowledge and be trained in diverse applications of various philosophical concepts and basic principles of Unani medicine, and Unani medicine principles of anatomy, physiology, pathology, clinical diagnosis and clinical practice.

A1.1 Philosophy

Unani medicine practitioners should have knowledge of the following:

- philosophy and logic relevant to Unani;
- the “factors of existence” or “working principles of the body” (umūr ṭabīʿīyya) – the elements (arkān), the temperament (mizāj), the humours (akhlāqīṭ), the organs (aʿḍāʾ), the spirits (arwāḥ), the faculties (quwā) and the functions (afʿāl).

A1.2 Physiology

Unani medicine is based on the four fundamental qualities (kayfiyat) – hot, cold, dry and wet – of the four cosmic elements – fire, air, earth and water. The four fundamental qualities are reflected in the general characters of the entire cosmos and in all natural entities. The general characters of all environmental entities and factors, such as diet, water and air (external environment) and wakefulness and sleep (internal environment), are also expressions and indicators of the four qualities.

There are four humours in the human body, which reflect the four elements and comprise the physical body and the subtle pneuma (rūḥ-i-nasīm). The subtle components of these four elements or humours form the subtle pneuma. The physical components form the organs (aʿḍāʾ). All these are characterized by four qualities.

The different faculties (quwā) of the body – the psychic faculty (quwwat-i-nafsāniyya), the vital faculty (quwwat-i-ḥaywāniyya), the physical faculty (quwwat-i-tabīʿīyya) and the reproductive faculty (quwwat-i-tanāsuliyya) – and all the functions arising from these faculties control the functioning of the body.

Unani medicine recognizes abnormalities in certain aspects of physiology, such as the pneuma/subtle substances (arwāḥ), the faculties (quwā) and the functions (afʿāl). It also visualizes a final level of pathological expression as a specific disease, which has evident manifestations of various typical signs and symptoms.

A1.3 Pathology

Unani medicine considers that diseases arise from different forms of imbalances in qualities or structural abnormalities and are characterized at different levels, such as abnormal temperament (sūʿ-i-mizāj), abnormal structure (sūʿ-i-tarkīb) and discontinuity (tafarruq-i-ittisāl).
A1.4 Clinical diagnosis

For diagnosis, the practitioner should know about the temperament (mizāj) and fundamental imbalance reflected in general clinical characters. The specific disease is diagnosed by examination of the pulse (nabḍ), specific clinical symptoms, and inspection of the urine (bawl) and stool (barāz).

A1.5 Basic methods of differentiation of diseases

Unani medicine considers that a disease can be analysed based on the fundamental imbalance, the structural abnormality and the particular form it takes. Fundamental imbalances are characterized on the basis of the pathological alteration in the quality and quantity of the humours.

Structural abnormalities are differentiated on the basis of the organ affected and the three types of abnormality involved – abnormality of substance, abnormality of function and abnormality of character.

Diseases are differentiated on the basis of various attributes, one common basis being the organ affected.

A1.6 Clinical practice (prophylaxis and therapeutics)

Unani medicine considers that most pathological conditions are prevented or cured by balancing the pathologically altered, or likely to be altered, quality or quantity of humours by using medicines, modifying the diet and lifestyle, and following regimens with the opposite (‘ilāj bi’ll ḍidd) or same (‘ilāj bi’ll mithl) quality to manage the specific pathology.

By focusing on the identification and correction of the imbalance, Unani medicine can treat a disease holistically at the root level and provide a radical cure with minimal or no adverse effects.

A1.7 Disease resistance and health promotion

Unani medicine uses a three-fold approach to disease resistance and health promotion – maintenance of health (ḥifẓ-i-sibḥat), management of suboptimal health (tadābir abdān-i-da‘īfa) and prevention of disease (ḥifẓ mā taqaddum). The first two relate to health promotion and the last relates to disease resistance.

Interventions for disease resistance may include the use of tonic medicines (muqawwiyāt), which improve the overall function of various organs, and stimulant medicines (muḥarrīk-i-ḥarārat gharīzīyā), which stimulate the vital heat or energy.

The Unani medicine concept of immunity is not based only on immunity against infectious diseases. Tonics for some organs, such as the liver or spleen, and some other medicines also play an important role in resistance against infectious diseases.

Unani medicine recognizes diet, lifestyle and factors of external and internal environment as the fundamental basis for maintenance of health. The perfect health of an individual is maintained and ensured by managing these factors to be in harmony with the person’s temperament.
A1.8 Common diagnostic procedures

The Unani medicine practitioner should know and use basic modern diagnostic procedures for identifying structural abnormalities, such as radiography and sonography, as they can play an important supplementary role in diagnosis.

The Unani medicine practitioner should know and use biochemical and other laboratory investigations as supplementary tools of diagnosis. The importance of these investigations may be limited, as they indicate only a broad pathology and do not provide a specific Unani diagnosis as they are humour-neutral.

The type of increased humour in a particular pathology is the most central consideration in deciding the Unani medicine intervention or treatment. Biochemical and other laboratory investigations indicate a diagnosis based on biomedical classifications and understanding, which may at times not correspond fully with Unani medicine.

The Unani medicine practitioner should be able to recognize medical emergencies based on reports and results of diagnostic tests and interventions.

A1.9 Medicines

The Unani medicine practitioner should have knowledge of Unani single-ingredient and compound medicines derived from herbal, animal and mineral sources (mawālīd-i-thalātha), the names of the ingredients, a description of the medicines, temperament, the main pharmacological actions, and their doses, indications and contraindications, including adverse reactions.

The Unani medicine practitioner should have knowledge of conventional pharmacology and should be familiar with the indications, contradictions, adverse reactions and drug–drug interactions of commonly used biomedicines, other traditional medicines and over-the-counter medicines. They should have the knowledge to integrate with the pharmacovigilance system and to follow the routine processes to report to the national pharmacovigilance system.

A1.10 Diet therapy

Diet therapy (‘ilāj bi’l ghidhā’) aims to treat certain ailments by administration of specific diets or by managing the quantity and quality of foods eaten. Food is used by the body to produce the four humours. The quantity and quality of humours are directly related to the quantity and quality of the food consumed.

Some foods have medicinal properties and are known as medicinal foods. Of these, some are more medicinal than food, and some are more food than medicinal. Foods are categorized as “light foods” (ghidhā-i-larīf), “heavy foods” (ghidhā-i-kathīf) and “moderate foods” (ghidhā-i-mu’tadīf).

Normal functioning and health of the body depend on the quality of food the person consumes. The Unani medicine practitioner may stipulate a diet regimen and ask the person to avoid certain foods. Correct diet and digestion are assumed to lead to correct balance of humours and maintain the progress of health, whereas faulty diet and digestion derange the balance and lead to disease.
Annex 2. Suggested duration of Unani training programmes

A2.1 Type I basic training programmes

A2.1.1 Type I-A basic training programme in Unani medicine for traditional healers
This programme consists of a minimum of 2500 hours of theory and practical training and an additional 750 hours of internship in a hospital or recognized medical centre.

A2.1.2 Type I-B basic training programme in Unani medicine for paramedical science graduates
This programme consists of a minimum of 2500 hours of theory and practical training and an additional 750 hours of clinical practice in a hospital or recognized medical centre.

A2.1.3 Type I-C basic training programme in Unani medicine for doctors of other systems of medicine
This programme consists of a minimum of 1500 hours of theory and practical training and an additional 750 hours of clinical practice in a hospital or recognized medical centre.

A2.2 Type II training programme
This programme consists of a minimum of 4000 student–teacher contact hours or 5 years of full-time education, including theory and practical training, including 1000 hours of supervised clinical training in a Unani hospital or Unani medicine centre or an appropriate Unani clinical establishment.

A2.3 Type III speciality training programme
This programme consists of a minimum of 3000 hours of theory and clinical, laboratory or research work for the dissertation or thesis.

A2.4 Type IV super-specialty training programme
This programme consists of a minimum of three years full-time training.

A2.5 Training programmes for associated staff in Unani medicine

A2.5.1 Unani therapist
This programme consists of 1000 hours of theory and practical training.
A2.5.2 Unani pharmacist
This programme consists of 1000 hours of theory and practical training.

A2.5.3 Unani nurse
This programme consists of 1000 hours of theory and practical training. A person with a recognized nursing diploma or degree may undertake 500 hours of Unani medicine nursing training to be eligible to work in Unani health care under the supervision of a Unani medicine practitioner.

A2.5.4 Unani educator/health promoter
This programme consists of 2000 hours of theory and practical training.
Annex 3. Formal licensure and established national standards and guidelines available in Member States that supported the development of this document

Our enquiry on formal licensure and established national standards and guidelines available in Member States that can assure good-quality health-care delivery of Ayurveda and Unani systems of medicine provided the following information, which has supported the development of the content of this document. The information was collected from relevant websites of ministries of the respective Member States, and from direct communication with officials and experts associated with these Member States.

A12.1 Argentina

Argentina has Ayurveda medical training programmes that educate conventional doctors. Since 2000, postgraduate courses in Ayurveda have been held for physicians and other health professionals at various universities in Argentina. Since 2014, the Argentine Medical Association has conducted similar courses. Some insurance companies provide medical malpractice insurance to physicians covering the Ayurvedic medical care provided by these health-care professionals.

A12.2 Australia

The Australian Government officially recognized two training programmes in Ayurveda in 2015 – the Diploma in Ayurvedic Lifestyle Consultation, and the Advanced Diploma in Ayurveda. Each qualification has a clearly defined scope of practice for its graduates. This official recognition of Ayurveda allows qualified and certified Ayurveda doctors to practise in Australia without further qualification.


A12.3 Bahrain

The Ministry of Health started to approve alternative medicine licences in 2003, including for Ayurveda and Unani. Since 2012, the licensing authority for regulating practice in Ayurveda and Unani has been the National Health Regulatory Authority.
A12.4 Bangladesh

The Unani and Ayurveda Practitioners Ordinance of 1983 provided for the regulation of qualifications and registration of Ayurvedic and Unani practitioners, formally acknowledging the Ayurvedic and Unani systems of medicine.


A12.5 Brazil

Ayurveda has been recognized within the framework of the National Policy of Integrative and Complementary Practices since 2017.


A12.6 Colombia

There is no specific policy or law document for Ayurveda or Unani, but there is a regulatory framework that covers traditional and complementary medicine practice by health-care professionals; the inclusion of services in the health system; the provision of services, phytotherapeutic products; and health food stores. Ayurveda and Unani medicine are classified under complementary medicine in Colombia. Decree 2753 of 1997 (Article 4) limits complementary medicine practice to physicians. Resolution 2927 of 1998 defines and regulates different types of complementary medicine practices. Law 1164 of 2007 dictates provisions on the practice of traditional and complementary medicine, and Resolution 2003 of 2014 regulates all health-care services, including traditional and complementary medicine. It defines the minimum requirements for physical spaces where services are to be provided, equipment and training of professionals, and the standards for health professionals. The regulations on
traditional and complementary medicine providers, enforced at the national level, are for acupuncture (2006), Ayurvedic medicine (2006), herbal medicines (2006) and homeopathic medicine (1962, 2006). Traditional and complementary medicine providers practise in private and public clinics. A traditional and complementary medicine licence or certificate issued by a relevant academic institution is required to practise. As a result of participatory work with the expert committees for traditional and complementary medicine, there is a proposal to define the profile and professional competencies of health professionals, to guide the formation and performance in each of the recognized systems.


A12.7 Cuba

Cuba regulates traditional medicine under the umbrella of the Natural and Traditional Medicine Program. In 2019, Cuba initiated the process of regulating Ayurveda and a pañcakarma department opened at a health centre operating within the national health system.

A12.8 Germany

There is no statutory recognition for Ayurveda or Unani, but there are increasing numbers of practitioners and their associations. Several courses have been conducted by private institutions, often under the aegis of medical associations, providing different levels of Ayurveda training.

A12.9 Hungary

Hungary officially recognized the Ayurveda medical system as a natural medicine through the 40/1997 Government Decree and the 11/1997 NM Order in 1997. According to the Decree, Hungarian medical doctors who have undertaken training of Ayurveda can practise it.


A12.10 India

India recognizes and regulates Ayurveda and Unani medicine as medical systems and has specific laws and frameworks in place to regulate training and practise of the systems. Ayurveda and Unani medicine are part of health system establishments. The services are delivered through government and private establishments. India has the world’s largest number of registered Ayurveda and Unani practitioners who have completed the graduate medical training of the respective systems, which are of more than 5000 hours duration.


Apex manual: biomedical waste management policy. New Delhi: All India Institute of Ayurveda; 2017.


Apex manual: patients right and education policy. New Delhi: All India Institute of Ayurveda; 2017.


Central Register of Indian Medicine (Amendment) Regulation 2016 (https://www.ccimindia.org/pdf/CCIM%20(Central%20Register%20of%20Indian%20Medicine)%20(Amendment)%20Regulation%202016.pdf).


National AYUSH morbidity and standardized terminologies portal (http://namstp.ayush.gov.in/#/index).


**A12.11 Italy**

Ayurveda was recognized as a medical act in 2002 by the National Federation of Medical and Dental Orders, supervised by the Ministry of Health. This position, expressed by the highest body of the medical profession in the field of ethics, reiterates that doctors, surgeons and dentists, after appropriate certified training, are the only people qualified to practise clinical Ayurveda. In 2018, the first elective course of Introduction to Ayurveda was activated for fifth- and sixth-year medical students of the Faculty of Medicine of the State University of Milan.

In 2019, the Italian National Organization for Standardization issued the normative UNI 11756:2019 for the profession of technician (therapist) in Ayurveda, which has become an officially acknowledged and protected profession by the Italian Government under Law 4/2013. The recognition is subject to verification of the education, examination and certification by the Federazione delle Associazioni per la Certificazione, a body recognized by Accredia, the sole national accreditation body appointed by the Italian Government under the vigilance of the Ministry of Economic Development. The qualifying education programmes in Ayurveda for medical doctors and technicians (therapists) are private and preferably certified by third parties such as ISO 9001 certification for teaching quality.

A12.12 Malaysia

Malaysia recognizes and regulates Ayurveda and Unani medicine as medical systems and has laws and frameworks in place to regulate them. In Malaysia, the Programme Standards: Traditional and Complementary Medicine, composed of the recognized standard Ayurveda Curriculum Design and Delivery, was established in 2009 and revised in 2021. In 2016, legislation for traditional and complementary medicine was established to regulate traditional and complementary medicine practitioners and services.


National occupational skills standards: Ayurvedic panchakarma therapy. Putrajaya: Department of Skills Development; 2016 (https://www.myspike.my/index.php?NossinfoSearch%5Bnosscode%5D=&NossinfoSearch%5Bnossname%5D=PANCHA&NossinfoSearch%5Bjoblevelid%5
A12.13 Mauritius

The Ayurveda and other Traditional Medicine Act came into effect in 1989. In 1992, Ayurvedic clinics were started in the Government hospitals and clinics in Mauritius. Ayurveda is now integrated within the Mauritian health system.


A12.14 Nepal

Nepal recognizes and regulates Ayurveda and Unani medicine as medical systems.


A12.15 Netherlands

Ayurveda and Unani medicine are classified as complementary and alternative medicine. There is no Government regulation for complementary and alternative medicine, and provision of alternative care is legal. Both medically and non-medically qualified professionals are allowed to practise complementary and alternative medicine.

By passing amendments to the Individual Health Care Professions Act on 1 December 1997 (Beroepen in de Individuele Gezondheidszorg), practice of medicine is open to all, with some limitations; some procedures may be carried out only by categories of professional practitioners authorized to do so by law.
According to the Individual Health Care Professions Act, the performance of certain medical procedures is limited to categories of professional practitioners authorized to do so by law. The eight health professions regulated by Section 3 of the Individual Health Care Professions Act are dentist, doctor, health-care psychologist, midwife, nurse, pharmacist, physiotherapist and psychotherapist. The new registration and title protection of these professions started on 1 December 1997. Performance of such a procedure by an unauthorized practitioner is a criminal offence. The procedures specified are artificial insemination (including vasti), cardioversion, catheterizations and endoscopies, defibrillation, electroconvulsive therapy, general anaesthetics, lithotripsy, obstetric procedures, procedures involving the use of radioactive substances and ionising radiation, punctures and injections, and surgical procedures.

A new health insurance system was introduced in 2006. Complementary and alternative medicine treatments are not covered by basic health insurance, but health insurers cover alternative treatment as either additional “free” benefits or covered by complementary voluntary health insurance. Ayurveda treatments and fees for consultation are partially covered by private insurance companies. The prerequisite for such reimbursement is that the Ayurveda practitioner needs to be a registered member of a professional body. If Ayurveda treatment is offered by a Bachelor of Ayurvedic Medicine and Surgery or an Ayurveda practitioner educated on accredited institutes in the Netherlands and in accordance with WHO guidelines for Ayurveda education, most health insurers will reimburse all or part of the treatment or consultation under the supplementary package. Most insurers do not require referral from a doctor for Ayurvedic treatment.


A12.16 Oman

Ayurveda practice is regulated by the National Office for Traditional and Complementary Medicine, under the Ministry of Health.


A12.17 Pakistan

Pakistan recognizes and regulates Ayurveda and Unani medicine as medical systems and has specific laws and frameworks in place to regulate these systems.


**A12.18 Qatar**

The Qatar Council for Healthcare Practitioners has approved the practice of Ayurveda since 2016.

**A12.19 Serbia**

The Ministry of Health of published and adopted the *Rule book on detailed conditions and ways of implementation of complementary medicine* in 2007, which allows doctors of medicine or dentistry, with appropriate training, to use Ayurvedic knowledge within the practice of illness prevention, diagnosis, treatment and rehabilitation. The updated version was adopted in December 2019.


**A12.20 Singapore**

Ayurveda practice runs within a self-regulatory framework supported by an operation manual, practice guidelines and code of ethics. All products, including Ayurvedic medicines, are used in clinical practice with a consent by the Health Sciences Authority issued for each batch of manufactured medicines. Therapy practices are not currently regulated by the Ministry of Health.


**A12.21 South Africa**

South Africa recognizes and regulates Ayurveda and Unani medicine as allied health professions.


**A7.22 Sri Lanka**

Ayurveda and Unani medicine are recognized and regulated as medical systems and has specific laws and frameworks in place to regulate training and practice of these systems. Both Ayurveda and Unani medicine are part of health system establishments. The services are delivered through government and private establishments.


Ayurveda Act No. 31 of 1961 (http://www.commonlii.org/lk/legis/num_act/aa31o1961156/).

Ayurveda (Amendment) Law (No. 7 of 1977) (http://www.commonlii.org/lk/legis/num_act/al7o1977248/).


**A12.23 Switzerland**

In 2009, further to the federal popular initiative Yes for Complementary Medicine, accepted by more than 67% of Swiss voters, the Swiss constitution was amended to better recognize and support complementary medicine. This opened new avenues for complementary and alternative medicine, including for Ayurveda.

Since 2012, introductory courses on complementary and alternative medicine have been given to undergraduate medical students at Swiss medical faculties. In that at the medical faculty of Lausanne, a course on Ayurveda is included.

In 2015, two federal Ayurvedic diplomas were created under the authority of the State Secretariat for Education, Research and Innovation: Naturopath in Ayurvedic Medicine, and Complementary Therapist in Ayurveda. These diplomas should favour recognition and integration of Ayurveda. Furthermore, more supplementary health insurers will reimburse Ayurvedic care in 2022.


Méthodes de la thérapie complémentaire reconnues par l’OrTra TC. Solothurn: Organisation der Arbeitswelt KomplementärTherapie OdA KT (https://www.oda-kt.ch/fr/methodes/).


A12.24 United Arab Emirates

The Traditional Complementary and Alternative Medicine Unit was established in 2002 under the Ministry of Health, and the Department of Traditional Complementary and Alternative Medicine started licensing Ayurveda and Unani medicine practice.


A12.25 United Kingdom of Great Britain and Northern Ireland

There is no statutory recognition for Ayurveda or Unani, but there are increasing numbers of practitioners and their associations. Several courses have been conducted by private institutions, often under the aegis of medical associations, providing different levels of Ayurveda and Unani training.

Code of ethics including code of conduct and disciplinary procedures of British Ayurvedic Medical Council incorporating the British Association of Accredited Ayurvedic Practitioners. Harrow: British Association of Accredited Ayurvedic Practitioners (http://www.britayurpractitioners.com/download/d774c6dc-6856-11e6-a3a0-153011a6e257/).

A12.26 United States of America

Standalone Ayurveda or Unani practice is permissible in the Health Freedom States, where Ayurvedic clinical services are provided by Ayurvedic health counsellors, Ayurvedic practitioners and Ayurveda doctor graduates. Ayurvedic panchakarma services are provided by trained massage therapists or other licensed health-care practitioners if the services are allowed within their licence’s scope of practice. For example, doctors of medicine and licensed acupuncturists and naturopathic doctors are allowed to practise Ayurveda under their licences in some states.

University-based Ayurveda practitioner training programmes started in 2008. These are designed to impart training to all, including people with no previous medical education. There are currently courses for training Ayurvedic health counsellors, Ayurvedic practitioners and Ayurvedic doctors, among others. There are also other types of Ayurveda training, including a programme that trains conventional practitioners as part of their integrative medicine training module, and a programme that trains conventional medicine students in relevant aspects of Ayurveda as part of their university-based undergraduate medical training.


Annex 4. WHO expert consultation meeting

The following were participants at the WHO expert consultation meeting for developing the documents *Benchmarks for the practice of Ayurveda*, *Benchmarks for the practice of Unani medicine*, and *Benchmarks for the practice of Panchakarma* and for updating the documents *Benchmarks for the training of Ayurveda* and *Benchmarks for the training of Unani medicine* held in Jamnagar, India, 26–29 November 2019:

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