Disclaimer: We kindly ask to acknowledge that due to the diverse and heterogeneous nature of the questions and the dynamic pandemic situation some of the information might be incomplete or only correct for the time being. Thus, please consider the date with the below information. All available information was provided by a country representative from the PHIRI network during or in connection to the respective meeting.

Date: 07.12.2022

Table 1: Country responses: Update on Long COVID management

Country	Topic: Update on Long COVID management	
	 Have there been any major changes in your country following your possible original response in early 2022 (29 REF) when it comes to existing or planned processes for coordinated management of care for long COVID patients in your country? 	Does your
	• Specifically, do these processes also relate to tools for (differential) diagnosis / symptom screening for clinicians, and standardised treatment pathways for long COVID patients?	country have a
	• In addition, could you briefly describe how your country organises the treatment/management of long COVID patients? Specifically, are there specialised clinics/departments/centres and are these clinics stand-alone entities or part of larger institutions such as hospitals or primary care centres?	registry of Long COVID patients?
	Does your country have a registry of Long COVID patients?	
Albania	No major changes. Situation has been less strict.	
	• No.	No
	• No.	
Austria	 In Austria, primary care is the first point of contact for Long COVID patients. In case, patients suspect that they might suffer from Long COVID, they are advised to contact their GP. Hence, the first step is an initial assessment, which mainly takes place in primary care (i.e. mainly with general practitioners). If necessary, referrals are made to other specialists in private practice and to therapists. Further clarification in special care services, such as special outpatient clinics or health centres of the Austrian health insurance fund, may be necessary in complex cases. After treatment of a COVID-19 disease in a hospital, as well as after treatment at home, inpatient or outpatient rehabilitation is arranged, depending on the severity and symptoms of the disease. The detailed "health supply pathway" for Long COVID care be down downloaded here (only available in German): https://www.sozialministerium.at/dam/jcr.f/239bc19-ae06-48a9-a65f-d116c05dafea/Versorgungspfad Long COVID.png The Austrian health professional board for "general practioners" (ÖGAM, https://oegam.at/) and the Austrian Karl Landsteiner University developed a Long COVID guideline (classification S1) and transferred the guideline into a practical point-of-care tool designed to provide information and decision support to medical doctors. It is clearly and concisely structured, supplemented by links and graphics as well as a number of additional chapters ranging from chronic fatigue to labour law issues and psychosocial aspects. The guideline is aimed at all doctors who deal with Long COVID patients or who are interested in the clinical picture. One of the main aims is to support GPs, who are the central point of care and the first point of contact. The tool is suitable for use at the point of need - also during the consultation - as well as for reference and research Further information on the w	No
Belgium	 Belgium organized a convention to organise and cover the costs related to the care of long COVID, mainly for the first line of care 	
-3.9.4	(Physiotherapy, Speech therapy, Psychological care, dietetics, occupational therapy). If the patient needs more than one care provider, a care	No





	coordinator is also appointed. More info: https://www.inami.frov.he/fr/themes/cout-remboursement/maladies/Pages/nost-covid-	1
	coordinator is also appointed. More info: https://www.inami.fgov.be/fr/themes/cout-remboursement/maladies/Pages/post-covid-remboursement-soins-1re-ligne-symptomes-persistants.aspx Another convention is under progress on specialized care (neurocognitive care). Since July 1, 2022, we have reimbursed frontline care for these people through a personalized "Post-COVID Care Journey". To do this, we conclude one-year agreements with first-line care providers and health insurance funds. Since December 1, 2022, we have also reimbursed the care provided by first- or second-line neuropsychologists, and by second-line occupational therapists, in the context of neurocognitive diagnosis and the treatment of cognitive disorders. No tool available to our knowledge, the entry point into the convention is the general practitioner, who makes the diagnosis of long COVID and develops the care pathway.	
	 No specific clinics or centres. The care conventions developed are put in place for all the care providers concerned. Still no registry. 	
Croatia	 A brochure was issued with the intention of informing the public about all the ways that along with can manifest and how it can be tretead. In September there have also been some new facilities established. There are no new processes of coordinated management of Long Covid patients at the moment. There are no precisely defined tools or standardized treatment pathways for Long Covid patients in Croatia also. There is a post Covid day hospital so an outpatient facility, as well as s special clinic in several cities around the country that offer counselling for a Long Covid patient. However, these are all clinics that are part of larger institutions, so no standalone. Entities, at least not so far there's also a post covid counseling center available as part of the center for youth health care. However, there hasn't been much done as I've already mentioned in the sense of standardizing and coordinated management and also referring to the registry there There is no registry or survey. 	No
Estonia	 EESTI PEREARSTIDE SELTS (www.perearstiselts.ee) Pikk COVID-19 esmatasandil käsitlusjuhend (https://www.perearstiselts.ee/component/edocman/pikk-covid-19-esmatasandil-kaesitlusjuhend/download - Guidelines for Primary care in Estonian) No. Family doctor coordinates treatment involving other specialists if needed. Not specialised clinics, but mainly some hospitals are for transfer of long COVID patients if special care is needed. No 	No
Germany	The Federal Joint Committee (G-BA) will be mandated to work out a national guideline for an interdisciplinary, coordinated and structured health care for persons with Long COVID until the end of year 2023: https://www.aerzteblatt.de/nachrichten/138650/G-BA-soll-Behandlungswege-fuer-Long-COVID-ausarbeiten A national scientific medical guideline for the diagnosis and treatment of Long COVID is available as an updated version with input from various scientific medical associations in Germany https://register.awmf.org/assets/guidelines/020-0271 If yes, please describe/share • tools for (differential) diagnosis / symptom screening for clinicians? - Differential diagnoses are clarified on a symptom-specific basis. To our knowledge, there is no algorithm that covers all symptom groups at the same time. However, there are recommendations as to which examinations are necessary for each (complex) symptom. The details can be found in the current guideline (https://register.awmf.org/assets/guidelines/020-0271 S1 Post COVID Long COVID 2022-08.pdf)	N/A





- We are not aware of any tools for differential diagnosis widely established in clinical practice. In specialist hospital outpatient care, efforts are taken to establish algorithms for (differential) diagnosis of patients with long-standing and severe symptoms and functional impairment, e. g. as a differential diagnosis to Chronic Fatigue Symptom (ME/CFS).
- standardised treatment pathways for long COVID patients?
 - So far, there are no standardised treatment pathways for Long COVID patients.

 To the best of our knowledge, there are also no standardized treatment pathways, because ultimately the manifestations of Long COVID can be so diverse and a causal therapy does not yet exist (all experimental). Recommendations for symptomatic treatment of the respective symptoms are provided in the guideline. However, from our point of view, these are only recommendations and not guidelines, so one cannot speak of a standardized procedure. If necessary, one could call (early) rehabilitation, although the rehabilitation measures are not offered to all patients, not in every situation and if, then just as symptom-oriented.
- patient information material about long COVID?
 - A guideline for patients and families affected with Long COVID/Post COVID-19 based on the multidisciplinary clinical practice guideline (see above) is available https://register.awmf.org/assets/guidelines/020-027p_S1_Post_COVID_Long_COVID_2021-12.pdf

Further information for patients is provided by the Robert Koch Institute, the Federal Centre for Health Education, the Federal Ministry of Health, Germany and patient organizations (see Links below)

Excerpt: There is a care algorithm for patients with post/long COVID (AWMF S1 guideline Long/ Post-COVID (as of 08/17/2021)).

- General practitioners and pediatricians represent the primary contact point and main treatment provider for long COVID patients. In addition, there are specialized post-COVID clinics around Germany which are usually part of larger hospitals or primary care centres. However, the demand for treatment in these specialized clinics significantly exceeds the currently existing capacities.
- A registry for children and adolescents with Long COVID has been launched but not proven to be feasible by the university children's hospital at the TU Dresden. To our knowledge there are no registries for adult patients with Long COVID as case definition and detection remains challenging.

In Germany, there are various approaches to systematically record Long COVID, each of which has limitations. A major reason for this is that no uniform clinical picture can be delineated in connection with Long COVID, so that general recording, for example to establish a disease registry, is correspondingly difficult. The case definition of a post COVID-19 condition presented by the World Health Organization (WHO) in October 2021 also has a provisional character here and, on the basis of the underlying scientific evidence, is also only applicable to adults (WHO 2021).

First evaluations of routine data of outpatient care by the Zentralinstitut für die kassenärztliche Versorgung (Zi) show that a post-COVID-19 condition (using ICD code U09.9!) was documented in the first quarter of 2021 for about 6% of insured persons who had COVID-19 by the end of 2020 (https://www.aerzteblatt.de/nachrichten/130316/Mehr-als-110-000-Patienten-mit-Post-COVID-Diagnose-erfasst). The caveat here is that it is unclear with what completeness and with what accuracy the resident physician codes capture Long COVID and Post COVID-19 conditions. Experiences at the Clinic and Polyclinic for Pediatrics and Adolescent Medicine at the University Hospital Dresden to establish a Long COVID Registry in children and adolescents have confirmed this. A Long COVID Registry could not be established due to lack of data from pediatricians, whereas a registry on post-acute severe consequences of COVID-19 disease, postviral inflammatory syndrome (PIMS) in children and adolescents is being implemented very successfully. Currently, the BMBF-funded Network University Medicine (NUM) is working on the establishment of a multicenter research registry on Long COVID in children and adolescents, in which various university hospitals in Germany are involved. In adults, experience is currently being gained in the establishment of Long COVID registries (https://webszh.uk-halle.de/longcovid-register/; https://www.kbv.de/html/1150_57210.php). An international exchange on "best practice" models for a systematic registration of patients with Long COVID in medical care would be essential. In any case, epidemiological and clinical studies as well as basic research will continue to be important to better understand the underlying disease mechanisms and clinical manifestations of Long COVID and to better help patients (Statement on Post-COVID19 German Medical Association September 2022

Gesundheit Österreich

	https://www.bundesaerztekammer.de/fileadmin/user_upload/BAEK/Themen/Medizin_und_Ethik/BAEK_Stellungnahme_Post-COVID-	
	Syndrom_ONLINE.pdf.	
	Links:	
	Robert Koch-Institut: Long COVID Website in English https://www.rki.de/EN/Content/infections/epidemiology/outbreaks/COVID-19/Long-	
	COVID/content-total.html	
	Robert Koch-Institut: Artikel zu Long COVID im Epidemiologischen Bulletin 44/2022 (03.11.2022)	
	https://www.rki.de/DE/Content/Infekt/EpidBull/Archiv/2022/44/Art_01.html	
	Robert Koch-Institut: FAQ Gesundheitliche Langzeitfolgen (19.7.2022)	
	https://www.rki.de/SharedDocs/FAQ/NCOV2019/FAQ_Liste_Gesundheitliche_Langzeitfolgen.html	
	Robert Koch-Institut: Epidemiologischer Steckbrief zu SARS-CoV-2 und COVID-19 (26.11.2021)	
	https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Steckbrief.html	
	German Centre for Health Education (BZgA): Website zu Long COVID (24.10.2022) www.longcovid-info.de	
	Infektionsschutz: Long COVID: Langzeitfolgen von COVID-19 (02.06.2022)	
	https://www.infektionsschutz.de/coronavirus/basisinformationen/long-covid-langzeitfolgen-von-covid-19/	
	German Federal Ministry of Health (BMG): Gesund.bund: Long-COVID (07.07.2022) https://gesund.bund.de/en/long-covid-post-covid-19-	
	condition Law & COV (ID Deutschland bytes) (Isan sees iddeutschland erry (O1 12 2022))	
	Long COVID Deutschland https://longcoviddeutschland.org/ (01.12.2022)	N1/A
Ireland	Will reply in written.	N/A
Italy	• A specific section on the website of the Istituto Superiore di Sanità (ISS) was dedicated the Long CoViD related activities and information	
	(https://www.iss.it/en/long-covid-cosa-sappiamo).	
	In 2021, a specific project dedicated to the Long-CoViD issue was launched by the Ministry of Health: "Analysis and strategies of response to	
	the long-term effects of CoViD-19 infection (Long-CoViD)"; it was coordinated by the Istituto Superiore di Sanità (ISS) and funded by the	
	National Center for Disease Prevention and Control (CCM) of the Italian Ministry of Health (https://www.iss.it/en/web/guest/long-covid-chi-	
	siamo).	
	The project involves Italian Regions (Tuscany, Apulia and Friuli), Clinical networks (Neuroscience and Neurorehabilitation, Aging, Cardiological	
	IRCCS (Scientific Institute for Research, Hospitalization and Healthcare) networks) and the Catholic University of Sacred Heart.	
	Aims of the project are to define the dimensions of Long-CoViD condition, to map number, characteristics and distribution of Long-CoViD care	
	centers in Italy, to define the best practices, to set up a Long-CoViD surveillance system, to structure a national clinical network.	
	The general objective of monitoring the long-term effects of the CoViD-19 pandemic is split in 5 specific goals (in Italian language -	
	https://www.iss.it/en/web/guest/long-covid-obiettivi-progetto	N.1/A
	1. Defining the dimensions of the Long-CoViD condition;	N/A
	2. Mapping number, characteristics and distribution of Italian Long-CoViD centers;	
	3. Defining the good clinical practices in the field of Long-CoViD;	
	4. Setting up a Long-CoViD surveillance system;	
	5. Structuring the national clinical network and dissemination activities.	
	A specific report on Long-CoViD management principles, reporting specific information on Long-CoViD symptoms, definition, diagnosis, and	
	treatment, was elaborated and published in English language on July 2021 by the Istituto Superiore di Sanità-ISS "Rapporto ISS COVID-19 n.	
	15/2021 English version - Interim guidance on Long-COVID management principles. Version of July 1, 2021" (https://www.iss.it/en/documenti-	
	in-rilievo/-/asset publisher/btw1J82wtYzH/content/id/5806782).	
	• One of the main objectives of the above mentioned project, was to define the good clinical practices in the field of Long-CoViD; as result, the	
	Report "Buone pratiche cliniche per la gestione e presa in carico delle persone con Long-CoVID" was published (in Italian language -	
	https://www.iss.it/documents/20126/0/BuonePraticheLongCovid.pdf/0100adfa-ff83-0174-4aad-8ec23217cf33?t=1668765945698).	





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	Specialised clinics/departments/centers were settled up as part of larger institutions such as hospitals or primary care centers in all the Italian Regions. In the framework of the above mentioned project, number, characteristics and distribution of Italian Long-CoViD centers was mapped. A list of clinical centers is available at https://www.iss.it/en/long-covid-mappa-dei-centri-regional ; and an article was published on the scientific journal Frontiers in Public Health (Floridia M. et al. Characteristics of Long-CoViD care centers in Italy. A national survey of 124 clinical sites. Front. Public Health, 19 August 2022. https://www.frontiersin.org/articles/10.3389/fpubh.2022.975527/full). The CCM project aims to define a national surveillance system. The data collection form was defined and the clinical centers involved in surveillance were identified. The clinical centers were identified both within the operative units joining in the project and through centers providing assistance for Long-CoViD. The data collection form for surveillance has been approved by the ethics committee and is being implemented in its electronic version.	
Moldova	There have been no recent changes.	
	• No.	No
	There are no clinics/medical institution specialized in the treatment/management of Long COVID patients.	
Poland	 No. In spring 2021 Poland launched a special rehabilitation program for "long covid" and "post covid" patients. The program guaranteed 2 to 6 weeks of comprehensive rehabilitation after COVID-19. It was designated for patients with complications after COVID-19 in the respiratory system, cardiovascular system, nervous system or musculoskeletal system, and with a decrease in muscle strength (using the assessment of muscle strength using the MRC scale) or 2nd and 3rd degree of severity of dyspnea according to the mMRC scale were qualified. Patients could benefit from the above, mentioned rehabilitation program within a year after the end of treatment. In view of the decrease in the number of SARS-CoV-2 infections, by order of the Minister of Health of March 31st 2022, referrals to the post-COVID-19 rehabilitation program were issued until April 4th 2022. Patients with issued referrals were able to complete them by the end of June 2022. Patients, who after April 4th undergo COVID-19 and their condition indicates the need for rehabilitation, are still able to benefit from rehabilitation based on financing from the National Health Fund, but under standard contracts concluded with e.g. health resorts for, among others, general, neurological and pulmonary rehabilitation. The Agency for Health Technology Assessment and Tariff System, in cooperation with the panel of Experts in the field of primary health care, pulmonology, cardiology, neurology and physiotherapy, has prepared a package of recommendations regarding monitoring the health of patients after COVID-19. https://www.aotm.gov.pl/covid-19/zalecenia-w-covid-19/zalecenia-w-long-covid-post-covid/ There is no separate registry of long-covid patients in Poland. 	No, but survey
Portugal	Will follow-up in written.	N/A
Romania	No major changes. Situation has been less strict.	
	No.	
	 There are clinics set up in every area, usually by respiratory physicians, as part fo their usual hospital activities. 	No
	• No.	
Serbia	There are special clinics for calling patients, but, no specialized healthcare facilities for post Covid patients. They are treated in the regular healthcare facilities, according their healthcare problems. Unfortunately, we don't have a I have a registry, also because, there is no clear definition of syndromes.	No
Slovenia	• There have been no changes since the 29 REF. There are so called centers for health promotion all over the country and within the last year special guidelines were developed.	No, but survey
Spain	No registry, but a survey. Will reply in written	
Spain	Will reply in written.	N/A





UK	No – lots of activity but not coordinated between institutions.	
	• No.	No
	▶ There are clinics set up in every area – usually by respiratory physicians as part fo their usual hospital activities.	No
	No.	





Figure 1: Countries with a registry of Long Covid-19 patients

