

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 and 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: 14.02.2022

Table 1: Country response: Long COVID management

Country	Topic: Long COVID management a) Are there existing or planned processes for coordinated management of care for long COVID patients in your country? b) If yes, please describe/share: <ul style="list-style-type: none"> • tools for (differential) diagnosis / symptom screening for clinicians? • standardised treatment pathways for long COVID patients? • patient information material about long COVID? • registries of long COVID patients? 	Planned processes for coordinated management?	Is there a (national) Long COVID registry?
Austria	a) At the moment, care for Long COVID patients is organised on the level of regional or individual health centres. Clinical guidelines exist. b) Patient information material on Long COVID is available from multiple sources. More coordinated supra-regional approaches are under discussion, and the further development of accessible and comprehensive patient information is intended. No patient registry currently exists nationwide, but there are registries at the level of individual/regional centres where patients are treated for Long COVID.	No (but under discussion)	No
Belgium	a) A process for coordinated management is under development. b) The Belgian Evidence Based Practice Network is developing a guideline for the management and rehabilitation of long COVID patients in primary care. An academic consortium was commissioned to perform this task. They started in May 2021 and are expected to publish their guideline in May 2022. A working group within INAMI/RIZIV is working on the care pathway and the financing (reimbursement) of long COVID treatment, with an emphasis on multidisciplinary and primary care. This project is included in the "traject pluriannuel des soins transversaux 2022". The reflection is developed on the basis of the model of 'stepped care' starting with the general practitioner before the professional specialists and coordination of care by a case manager. No information material exists. No registry is implemented, but if the INAMI develops a care plan and a specific reimbursement of care, it is possible that subsequently we will have quantitative data on the number of people who have benefited from this care plan and reimbursement.	No (but planned)	No
Czech Republic	There are recent national clinical recommendations for Long COVID patients and instructions for physicians, as prepared by experts, how to recognize and treat Long COVID cases (however in the recommendations, the development of individual treatment plans on a case-by-case basis is encouraged). There are specific centres for Long COVID treatment. The national surveillance database for COVID 19 has a particular module for Long COVID cases, however it is not mandatory to report all patients who present with Long COVID symptoms, so it is up to each physician whether cases get taken up into the database. There are around 3.000 registered cases in the database and the database includes detailed information on the cases. Information on Long COVID is also received from health insurances, but there is no clear protocol how to identify Long COVID cases yet.	Yes	Partly

	Position document and clinical recommendations on Long COVID (Czech language): https://koronavirus.mzcr.cz/wp-content/uploads/2021/10/Postcovidov%C3%BD-syndrom-a-p%C3%A9%C4%8De-v-pneumologick%C3%BDch-ambulanc%C3%ADch-aktualizovan%C3%A1-verze-ze-z%C3%A1%C5%99%C3%AD-2021.pdf		
Estonia	a) There are no processes for coordinated management of long COVID care but experts feel the need. b) Analyses of long COVID patients are being carried out (Health Insurance Fund database, Tartu University project), but no results yet. Registry of long COVID patients does not exist. There are treatment guidelines published for rehabilitation of COVID-19 patients: covid-19 taastusravi kasitlusjuhend 27.05.21.pdf (terviseamet.ee)	No	No
Finland	No systematic screening by clinicians for Long COVID is carried out and no national register currently exists. However, the government has ordered a review on Long COVID from a group of medical experts to identify potential treatment guidelines. The review was completed and submitted late in 2021 and is being reviewed by the government with a view to developing guidelines, currently in process. Link to the Finnish expert panel review of Long COVID (Finnish language): https://valtioneuvosto.fi/documents/1271139/105036658/Pitk%C3%A4kestoinen+COVID-19+-+konsensuslausuma+311221+-+luonnos+7.1.pdf/b28ede5f-d165-91b7-bcd0-8e6b3dc59249/Pitk%C3%A4kestoinen+COVID-19+-+konsensuslausuma+311221+-+luonnos+7.1.pdf?t=1641544501766	No (but under development)	No
Germany	A scientific medical guideline for the diagnosis and treatment of Long COVID is available with input from various scientific medical associations in Germany https://www.awmf.org/uploads/tx_szleitlinien/020-027I_S1_Post_COVID_Long_COVID_2021-07.pdf 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). So far, there are no standardised treatment pathways for Long COVID patients. 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://www.awmf.org/uploads/tx_szleitlinien/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). 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. *Robert Koch Institut: Gesundheitliche Langzeitfolgen (Stand: 26.1.2022) https://www.rki.de/SharedDocs/FAQ/NCOV2019/FAQ_Liste_Gesundheitliche_Langzeitfolgen.html *Robert Koch Institut: Epidemiologischer Steckbrief zu SARS-CoV-2 und COVID-19 (Stand: 26.11.2021) https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Steckbrief.html *Infektionsschutz: Long COVID: Langzeitfolgen von COVID-19 (Stand 07.02.2022) https://www.infektionsschutz.de/coronavirus/basisinformationen/long-covid-langzeitfolgen-von-covid-19/ *BMG Gesund.bund: Long-COVID (Stand: 12.10.2021) https://gesund.bund.de/long-covid-post-covid Long COVID Deutschland https://longcoviddeutschland.org/ (letzter Zugriff: 10.02.2022)	No	Partly
Ireland	People in Ireland who have had Covid-19 and are in need of further care are currently being followed up by their GP or in hospital settings as clinically appropriate. Treatment is currently focused on the management of specific symptoms. Anyone who is concerned about persistent Covid-19 symptoms is advised to contact their GP in the first instance.	Partly	No



	<p>Post-Acute and Long Covid Clinics have been set up in some acute sites across Ireland to address the clinical needs of those patients with covid related illness. Other acute hospitals throughout the country are providing care for patients through general respiratory and infectious clinics.</p> <p>The Health Service Executive, which is the national health service in Ireland, have developed a national Model of Care for Long COVID, which outlines how services and supports for patients with Long COVID should be designed and delivered. An implementation team has been established to oversee this work and their initial priority will be on the establishment of Post-Acute and Long COVID clinics to treat patients as needed, while also working to better understand the demand for this service.</p> <p>Covid cases across the country and the possible resultant requirement for post-acute and long Covid services are continuously monitored, including the possible impact of the Omicron variant on service provision. The Department of Health are also continuing to fund research into the clinical impacts of COVID-19 so that we can learn more.</p>	(and being developed further)	
Italy	<p>a) In Italy processes for coordinated management of long COVID patients partially exist.</p> <p>A specific report on Long-COVID management principles was elaborated and published on July 2021 by the Istituto Superiore di Sanità-ISS; the English version of the Report is available and downloadable at the following link: 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/documents/20126/0/Rapporto+ISS+COVID-19+15_2021_EN+ss.pdf/3f4d9475-9455-eacb-6194-6e68586554e8?t=1630585617777 - ISS All the information here reported are drawn from the Report.</p> <p>b) The symptoms attributed to the Long-COVID condition are numerous and heterogeneous and may arise in subjects of any age and with varying degrees of severity of the acute phase of the disease. The lack of a precise definition of this condition and the breadth of the spectrum of symptoms make the epidemiological evaluation difficult. Therefore, there are not specific tools for diagnosis/symptoms screening, but criteria for diagnosis are reported below and in the cited Long-COVID Report.</p> <ul style="list-style-type: none"> • Definition: the terminology most frequently used to define the stages following acute disease from SARS-CoV-2 is: <ul style="list-style-type: none"> - Persistent symptomatic COVID-disease (signs and symptoms attributable to COVID-19 lasting between 4 and 12 weeks after the acute event); - Post-COVID-19 syndrome (signs and symptoms that developed during or after an infection compatible with COVID-19, present for more than 12 weeks after the acute event and that cannot be explained by alternative diagnoses). • Long-COVID includes both the persistent symptomatic form and the post-COVID syndrome. • Diagnosis: the diagnosis of Long-COVID is purely clinical and is based on a history of COVID-19 and the failure to fully recover with the development of some of a huge amount of symptoms listed (reported in Table 1 of the Report). Unfortunately, apart from the definition reported above, there are no clear, internationally agreed criteria to define Long-COVID. This inevitably creates uncertainty in the diagnosis and wide variability in the identification of this condition. • Treatment: there are not standardised treatment pathways for Long-COVID patients. A multidisciplinary approach is to be adopted in the management of patients with Long-COVID in order to be able to respond to the different clinical, functional, cognitive, psychological and nutritional manifestations of the disorder. This approach is to be personalized, modulated and adapted by keeping account of the variety of conditions that may arise in individual patients. <p>The delivery of primary care for patients with Long-COVID should be structured on at least three levels:</p> <ul style="list-style-type: none"> - Stratification of the groups of patients at risk of developing Long-COVID; - Evaluation of patients with Long-COVID-like symptoms; - Planning of care pathways. <ul style="list-style-type: none"> • There is not specific and official material about Long-COVID for patient information. • Specific registries of Long-COVID patients are going to be settled up in Italy." 	Partly	No (but planned)
Malta	No specific clinics or guidelines, anyone with long covid symptoms is managed conservatively at the moment.	No	No



Netherlands	<p>a) There are plans for coordinated management. Please find here some links in relation to some of the above questions: Government website Long COVID (langdurige klachten na corona) Coronavirus COVID-19 Rijksoverheid.nl</p> <p>b) ZonMW (the Dutch organisation for health research and care innovation) is working on guidelines for healthcare professionals on behalf of the government. The plans are in the letter to Parliament with response to petition and to the 10-point plan Long COVID. Mid 2021 a petition was sent by 12 patients to the House of representatives of the Netherlands to call for recognition, coordinated research and treatment of long-term Covid. They also refer to The international patient movement – Long Covid Netherlands (wordpress.com) and Long-Covid Europe Long-Covid Europe (longcovid-europe.org).</p> <p>C-support: https://www.c-support.nu/en/ C-support is a foundation, which is commissioned by the Dutch Ministry of Health, Welfare and Sport. C-support gives advice to people in the Netherlands who suffer from long-term corona symptoms and shares knowledge with other (healthcare) professionals. They offer FAQ's for patients and professionals Frequently asked questions - C-support EN.</p> <p>NVAB, the Netherlands Society of Occupational Medicine: Nieuwe CAS-code: R606 long-COVID NVAB (nvab-online.nl) Long-COVID: focus op het herstel van de energiebalans NVAB (nvab-online.nl)</p>	Yes	N/A
Norway	<p>a) There is a national plan for COVID-19 rehabilitation including the long Covid. It is in Norwegian. https://www.helsedirektoratet.no/tema/rehabilitering-habilitering-og-individuell-plan/nasjonal-plan-for-rehabilitering-etter-covid-19</p> <p>In addition, there is also a rapid review on this topic in English published in January 2022: https://www.fhi.no/en/publ/2022/COVID-19-Post-COVID-19-condition/</p> <p>b) For the moment there are no public registries on long covid patients.</p>	Yes	No
Poland	<p>People who have undergone COVID-19 can benefit from rehabilitation reimbursed by the National Health Fund (NFZ)</p> <p>About a third of patients have complications from developing COVID-19. The most common ones are: breathing problems, decreased overall fitness of the body, less tolerance to exercise, muscle and joint pain, anxiety and depression disorders. These ailments significantly limit activity in social and professional life. The National Health Fund (NFZ) has prepared a comprehensive rehabilitation program for patients suffering from COVID-19.</p> <p>Rehabilitation will take 2 to 6 weeks. Patients will be provided with medical, nursing and psychological support. It can be used up to 12 months after the end of COVID-19-related treatment.</p> <p>A patient will be able to benefit from rehabilitation on the basis of a referral. They are issued by a health insurance doctor after the end of treatment related to COVID-19.</p> <p>Depending on the patient's condition, rehabilitation will be carried out:</p> <ul style="list-style-type: none"> • in stationary mode • in spa mode • outpatient, i.e. in physiotherapy offices dealing with therapeutic rehabilitation • at home. <p>The doctor decides about the rehabilitation mode.</p> <p>The decision is made by the doctor based on the results of several tests:</p> <ul style="list-style-type: none"> • X-ray or MRI or CT imaging examinations of the chest with a description taken during treatment or after the end of treatment in the acute phase of the disease • current morphology, CRP (acute phase protein) • current ECG test • other medical records of COVID-19 treatment or postviral symptoms that impact health assessment 	Yes	N/A



	<ul style="list-style-type: none"> • in the case of the dominant cardiological problem - echocardiographic examination of the heart during or after treatment in the acute phase of the disease. <p>A comprehensive rehabilitation program includes:</p> <ul style="list-style-type: none"> • kinesiotherapy with particular emphasis on endurance training, breathing exercises, effective coughing exercises, general fitness exercises, outdoor exercises • inhalations • therapy, walking training • hydrotherapy, physical therapy - according to individual indications • balneotherapy - according to individual indications • massage - according to individual indications • health education and health promotion, including, for example, learning the correct technique of using inhalers, elimination of addictions and other risk factors for civilization diseases, pro-health lifestyle change • relaxation training • dietary treatment - according to individual indications • rehabilitation support for comorbidities. <p>The rehabilitated patient has the right to consult the medical staff and may benefit from professional psychological therapy. It also uses diagnostic tests, drugs, and medical devices, which are essential to getting the best results from your treatment program.</p> <p>It is possible to benefit from rehabilitation in a physiotherapy office and at home in the following cases:</p> <p>Patients must have persistent dyspnea that seriously interferes with normal functioning. The intensity of dyspnea is determined on the basis of a special five-point (0-4) mMRC scale (modified Medical Research Council). If the result is:</p> <ul style="list-style-type: none"> • equal to or higher than 1 - the patient may be referred for rehabilitation in a physiotherapy office • less than or equal to 1 and difficulty with independent movement - the patient may be referred for rehabilitation at home. <p>A patient with indication 1 is assumed to experience dyspnea during brisk walking over flat terrain or occurs when climbing a slight hill.</p> <p>Additionally, the following factors decide about qualification for rehabilitation at home:</p> <ul style="list-style-type: none"> • grade 3–9 on the functional assessment scale (0–10) • MRC muscle strength assessment (0–5) • occurrence of the weakness syndrome after the patient's stay in the intensive care unit. <p>Rehabilitation in the clinic or at home is divided into several stages.</p> <ol style="list-style-type: none"> 1. Initial visit - a specialist interviews the patient and performs basic tests and examinations, incl. respiratory and stress exercises; the results will be compared with the results after completion of rehabilitation and will be used to evaluate the effects of therapy. 2. Therapeutic visits - the physiotherapist sets up a calendar of individual visits with each patient: 3 visits a week or more, if required by the patient's health condition. The therapy is based on breathing, endurance and interval training. Depending on the needs and health of the patient, it is possible to include additional elements of the therapy, e.g. expectoration techniques, balance training, special rehabilitation methods for patients with neurological problems. 3. Final visit - the physiotherapist repeats the examinations and tests performed during the first visit and compares the achieved results, incl. fatigue and breathing tests (determining the scale of the occurrence of dyspnea). <p>During rehabilitation, patients will receive practical tips that will help them recover from rehabilitation themselves. They will also receive plans with home-made exercise kits, thanks to which they will adjust the scale of difficulty and intensity of training to the capabilities of their own body."</p>		
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Portugal	Some studies have been conducted in large hospitals on those developing Long COVID symptoms, particularly after severe cases of infection, and are being followed up. First data is emerging on the symptoms and number of such patients, there is an estimation of about 100.000 patients suffering from Long COVID, but this is only first data.	No (but data collection)	No
Serbia	There is no national register and no tracking of Long COVID patients on the national level. However, individual clinics might be collecting data regarding the Long COVID patients they are treating.	No	No
Slovakia	a) There is a process for coordinated management to a certain extent: special care not nationwide, none compulsory b) A shortlist describing symptoms exists, and citizens of concern can find postcovid care in general hospital units. A standardised treatment is mainly based on respiratory rehabilitation; spa resorts offer tailored residence for postcovid rehabilitation and in part this is covered by health insurance. Some patient information exists on social networks, where it is hard to distinguish correct from fake. No registry of long COVID patients but there are considerations that such a registry could be constructed as the basis information for such a registry exists in the system"	Partly	No (but under discussion)
Slovenia	a) In Slovenia exists a planned processes for coordinated management of care for long COVID patients. Patients with symptoms of long covid can be referred to local Health Promotion Centre. Those centres are spread all over Slovenia. Patients are referred to these centres either by their family doctor or they can also call in by themselves. National Institute of Public Health developed a bunch of material for staff at the Health Promotion Centres. These materials are available in Slovenian language at https://www.nijz.si/sites/www.nijz.si/files/uploaded/ckz_zvc_zaprto/smernice_obravnavna_covid_zvc_ckz.pdf There's also a "post-covid clinic" at University Clinical Centre of Ljubljana, working together with University Rehabilitation Institute. Their services are focused on patients with difficult development of covid and to patients which were not hospitalized but haven't recovered fully. b) Patient material is available (in Slovenian language) at https://www.nijz.si/sl/usmeritev-bolnikom-po-prebolelem-covidu-19 . Register of long covid patients has not been established yet and at the moment, there are no plans of establishing it. Patients can be referred to special Long covid centres, there are also special email and phone contacts for patients to contact. Centres provide workshops. National institutes of public health have developed guidelines for these centres. There is also a clinic with Ljubljana university that treats particularly severe cases. Institute provides information material. Currently no plans to establish a national registry, but the general data exists and something approximating this data can be drawn from it.	Yes	No
Spain	a) There are not official plans for a coordinated care for long COVID patients in Spain. b) Long COVID condition has been recognised by the Ministry of Health but there is not a consensus at national level on its definition or about a standardised treatment pathway for these patients (COVID-19 Clinical information last update October 2021) https://www.sanidad.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/20211028_CLINICA.pdf Patients are treated within the usual care pathways, in primary and hospital care, as part of the basket of benefits covered by the NHS. Should be noted that 48 scientific societies published some guidelines proposing a definition of the condition and how to take care of these patients. https://www.semg.es/images/2021/Documentos/GUIA_CLINICA_COVID_Persistent_20210501_version_final.pdf They define persistent COVID as a complex condition affecting prior COVID patients (with or without confirmed diagnosed by laboratory tests) that have persisting symptoms in the four to twelve 12 weeks after the acute event. This definition does not include those cases with a free symptom period.	No	No (but planned)



	<p>In addition, a group of primary care physicians, community pharmacists, nurses, psychologists and patients associations presented a consensus report on February 8 focusing on the treatment of long-COVID mild symptoms. The report describes 27 recommendations to identify patients with long COVID, treat their symptoms and do an effective follow-up of their evolution. https://www.semg.es/images/2022/Documentos/Sintomas_leves_del_COVID_Consenso.pdf</p> <p>Since March 2021, there is some information for citizens and patients at the Ministry of Health web https://www.sanidad.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/COVID_persistente.pdf</p> <p>It is planned a multicentric observational study Registry REGICOVID-AP aimed to identify clinical and genetic factors associated to long-COVID in order to stratify COVID-19 patients regarding their risk to develop the condition (https://www.semg.es/index.php/noticias/item/749-noticia-20220203).</p>		
United Kingdom	<p>a) There is a coordinated management of care for long COVID. Treatment facilities England: https://www.england.nhs.uk/2020/12/long-covid-patients-to-get-help-at-more-than-60-clinics/ Wales: Adferiad (Recovery) programme for long COVID https://gov.wales/community-and-primary-care-services-are-helping-treat-people-long-covid</p> <p>b) A long-COVID expert group has been set up to consider the impacts of the condition, treatments and referral methods. Patient information: https://www.sign.ac.uk/media/1825/sign-long-covid-patient-booklet-v2.pdf https://www.yourcovidrecovery.nhs.uk/ Registeries: no national registries at present, there will be local ones at treatment facilities.</p>	Yes	No



Figure 2: Countries with planned processes for coordinated management of care for long COVID patients

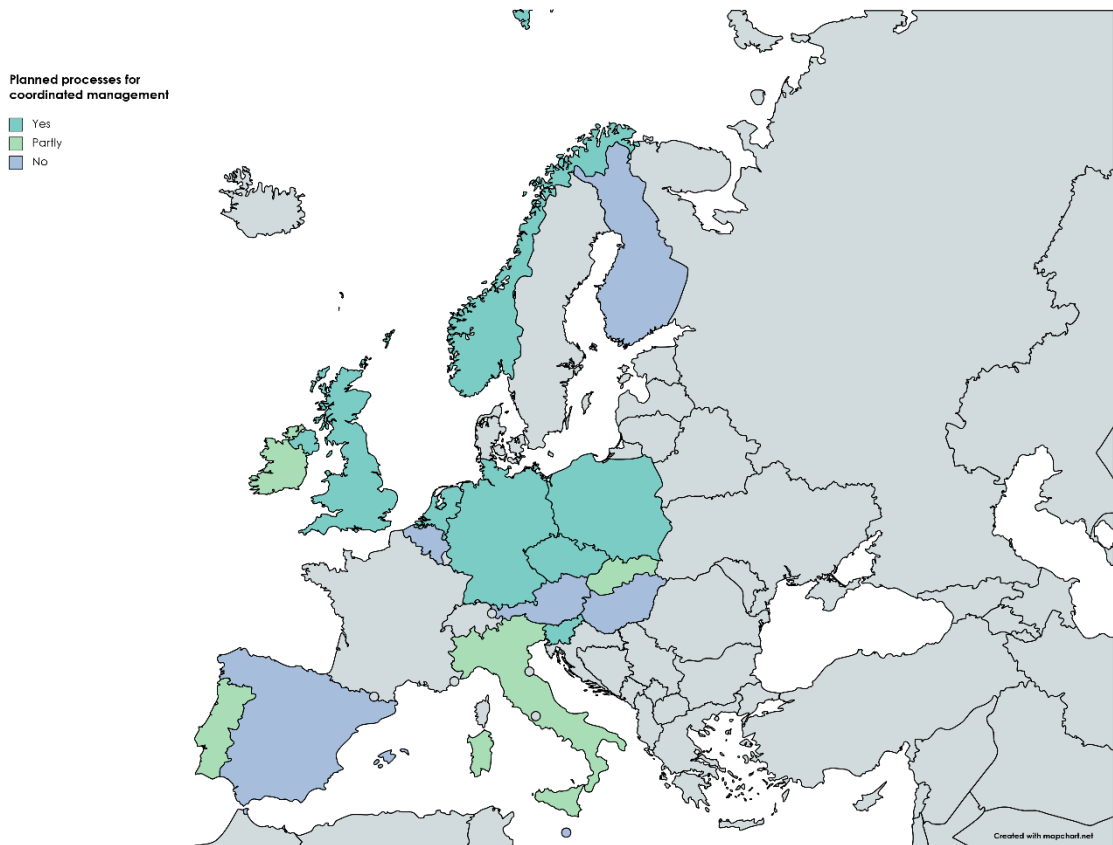


Figure 3: Countries with a (national) long COVID registry

