



'NOVEL CORONAVIRUS (SARS-CoV-2) HEALTH EMERGENCY: PREPAREDNESS AND RESPONSE' TRAINING COURSE

Overview of the training materials intended for trainers or self-education

The training package has been adapted in its contents and translated by the Istituto Superiore di Sanità (ISS) in the framework of the MediLabSecure project, coordinated by Institute Pasteur and funded by the European Union



Overview

Following the outbreak of the novel coronavirus (SARS-CoV-2), originated in Wuhan in December 2019 and spread all over the world, the Italian National Institute of Health (Istituto Superiore di Sanità, ISS) developed an e-learning course for healthcare professionals titled 'NOVEL CORONAVIRUS (SARS-CoV-2) HEALTH EMERGENCY: PREPAREDNESS AND RESPONSE'.

This course is aimed at supporting healthcare professionals to respond to the novel coronavirus (SARS-CoV-2) health emergency by using the latest scientific evidence and official sources of information.

This course consists of three learning units:

- Unit 1: Features of the novel coronavirus (SARS-CoV-2) health emergency
- Unit 2: Surveillance, identification and management of suspected and confirmed cases
- Unit 3: Important information for healthcare professionals on prevention, identification and monitoring strategies in both clinical and community settings

Each training unit requires at least an effort of 2 hours; the deepening through the readings and through the links provided require 1 additional hour for each unit. Overall, the course includes 9 hours of training.

Active learning is inspired by the Problem-Based Learning (PBL) educational method, in which participants set their self-identified learning objectives and find solutions to the problem based on their professional environment. Furthermore, participants can expand their knowledge and acquire new problem-solving skills by studying the training material selected by experts, and independently performing additional research.

This training package provides a selection of the educational materials prepared for the ‘Novel coronavirus (SARS-CoV-2) health emergency: preparedness and response’ distance course.

Although this course, originally designed to be used in Italy, was adapted for other countries, some of the response, containment and coordination measures adopted in Italy were mentioned as they were considered interesting and useful learning points.

The full slide deck with associated slide notes and the supporting materials (bibliography, webography, further reading resources) will be available as part of this training package. They have been prepared and selected by experts. This course also includes multiple-choice self-assessment tests to be completed before and after the training. Each learning unit starts with the presentation of a **Problem**, which represents the learning point and is presented as text, and terminates with answers containing key messages.

At the end of the course, participants are invited to complete a course evaluation, consisting of an online questionnaire.

The selection of specific webography and official information sources has been the major focus during the preparation of this course. By accessing these resources, healthcare professionals can keep their knowledge up to date. Healthcare professionals are advised to consult the latest information/documentation available: this emergency is continuously evolving, therefore some of the information herein included might not be fully up to date. It is recommended to consult official information sources and official websites such as those of the Italian National Institute of Health (ISS), European Centre for Disease Prevention and Control (ECDC), World Health Organization (WHO), Centre for Disease Control and Prevention (CDC).

The training material included in this package is intended as starting material for the development of training courses for healthcare professionals and self-education. This course should be used for self-education purposes only if considered appropriate by the relevant national authorities.

User guide

1.1 Aim

The course '**Novel coronavirus (SARS-CoV-2) health emergency: preparedness and response**' is aimed at supporting healthcare professionals to respond to the novel coronavirus (SARS-CoV-2) health emergency by using the latest scientific evidence and official sources of information.

1.2 Main objectives of the course

1. Describe the nature of this international health emergency and identify the associated control and prevention strategies
2. Identify the key individuals involved in the management of this health emergency, official sources of information and coordination of health emergency protocols
3. Describe the novel coronavirus (SARS-CoV-2) situation and identify the protocols to be adopted for the prevention, identification and management of suspected or confirmed SARS-CoV-2 cases (including the description of laboratory investigations and protection measures for healthcare professionals)
4. Identify SARS-CoV-2 useful information for health care professionals regarding prevention, identification and control in the clinic, hospital and community settings (and acquire knowledge on how to display information materials in both clinic and community settings)

1.3 Learning method

The learning method herein adopted is inspired by the Problem-Based Learning (PBL) educational method, in which participants set their self-identified learning objectives. The understanding of the problem and the identification of possible solutions are based on the participant professional environment.

The **problem** enables the participants to reflect on their professional experience and knowledge and identify the learning needs related to the presented problem. Furthermore, participants can expand their knowledge and acquire new problem-solving skills by studying the training material, selected by the experts, and independently performing additional research.

The **questions**, proposed at the end of the problem, guide the learning process towards a more practical approach and the **keywords** motivate the participant to perform further research and reading. In this way, participants are encouraged to expand their knowledge and skills and are actively involved in the learning process from the beginning.

In this course, the **PBL main steps** are reproduced.

Problem-Based Learning steps

PBL steps	Scope	Instructions
Problem analysis	Analyse and picture the situation from a different perspective, identify the focus of the problem and encourage the participants to reflect on their previous related experience	Read the problem and think about how your previous knowledge and experience can guide your learning process and help you find the answers to the problem-related questions
Identification of learning objectives	Define individual learning needs through the identification of specific learning objectives, which are related to the presented problem	<ul style="list-style-type: none"> • Think about which learning objectives could be useful for you in order to solve the problem and answer the questions related to the problem • Then, compare the learning objectives identified by yourself with those proposed by the expert
Self-directed learning	Perform independent research and further readings to achieve the learning objectives	<ul style="list-style-type: none"> • Taking into account the learning objectives, try to perform independent research and collect further study materials. The keywords and references can guide your research • Access the 'Reading Materials' selected by the expert. You should read these materials to complete the course • Access the 'Tutorial' section, where you will find a slide deck with notes summarising the main topics. Follow the slides carefully to achieve an overall understanding of the course and identify where you need to perform further research or readings of the suggested websites/documents
Identify the solution to the problem	Complete the learning section and answer the questions at the end	Access the ' Problem solutions ' section and read the slides. In these slides, you will find solution options, which are suggested by the experts and contain key messages

What is the structure of the course?

Summary of all activities required to complete the course

Activity	Description	Completion criteria	Goals
For each learning unit			
Entrance assessment (pre-learning test)	Multiple-choice test	Answer the questions	Assess your initial knowledge
Exercise (problem)	Text document	Read the problem and try to answer the proposed questions	Analyse the problem and exploit your previous knowledge and experience related to the topic. Evaluate your learning needs through the identification of specific learning objectives
Supporting materials	Webography, bibliography and keywords	Access the available resources	Independent research of further study materials to achieve the identified learning objectives
Reading materials	PDF documents, selected by the experts	Access and study the material	Acquire basic knowledge on the topics of the course Find a hypothetical solution to the problem
3 Tutorials	Slides with notes	View all the available slides for each tutorial	Access the topic-related summaries prepared by the experts
Problem solution	Slides	Check the slides related to the solution	Compare your hypothetical solution with the one given by the experts and read the key messages.
Self-assessment (post-learning test)	Multiple-choice test	Answer the questions	Assess your level of knowledge at the end of the course. The wrong answers will identify the learning objectives to review.
At the end of the 3rd learning unit			
Course evaluation questionnaire	Structured and open questions	Answer the questions	Evaluate the quality of the course

After completion of the course and final evaluation questionnaire participants will receive a completion certificate

Acknowledgements

Experts who have adapted the ISS Italian package for the Countries of the MediLabSecure Network

- Silvia Declich, Maria Grazia Dente, Maria Elena Tosti, Laura Amato, Ernesto Costabile – National Centre for Global Health, Italian National Institute of Health, Rome
- Rita Ferrelli – Education Service, Italian National Institute of Health, Rome
- Flavia Riccardo – Infectious Disease Department, Italian National Institute of Health, Rome

Experts who have developed the training materials for the ISS distance course

- Silvio Brusaferrero – President of the Italian National Institute of Health, Rome
- Andrea Piccioli – Director-General of the Italian National Institute of Health, Rome
- Antonino Bella, Maria Rita Castrucci, Fortunato D’Ancona, Anna Maria Luzi, Patrizio Pezzotti, Giovanni Rezza, Flavia Riccardo, Paola Stefanelli – Infectious Disease Department, Italian National Institute of Health, Rome
- Alfonso Mazzaccara – Education Service, Italian National Institute of Health, Rome
- Mirella Taranto- Press office, Italian National Institute of Health, Rome
- Paola De Castro, Antonio Mistretta – Scientific communication service, Italian National Institute of Health, Rome
- Barbara De Mei, Valentina Possenti – National centre for disease prevention and health promotion, Italian National Institute of Health, Rome
- Agostino Miozzo – Director of the Civil Protection, Rome
- Giuseppe Ruocco – Secretary-General of the Ministry of Health, Rome
- Anna Caraglia, Mauro Dionisio, Francesco Maraglino – General Directorate for health prevention, Ministry of Health, Rome
- Maria Rosaria Capobianchi, Concetta Castilletti, Salvatore Curiale, Giuseppe Ippolito, Vincenzo Puro, Francesco Vairo – National Institute of Infectious Diseases ‘L. Spallanzani’, Rome
- Filippo Anelli – President of the Italian National Federation of Orders of Physicians, Surgeons and Dentists, Rome
- Claudio Cricelli – President of the Italian Society of General Medicine and Primary Care, Florence
- Florigio Lista – Head of Celio Military Policlinic Department, Rome
- Barbara Mangiacavalli – President of the National Federation of Orders for Nursing Professions, Rome
- Daniele Miparini – National Agency of Regional Health Services, Rome
- Gaetano Privitera – Director of the Operative Unit of Hygiene and Epidemiology, University Hospital of Pisa, Pisa
- Francesca Russo – Director of Veterinary Public Health and Food Safety, Veneto Region, Venice
- Silvestro Scotti – National Secretary of the Italian Federation of General Practitioners, Rome

Executives

- Maria Grazia Dente – National Centre for Global Health, Italian National Institute of Health, Rome
- Alfonso Mazzaccara – Education Service, Italian National Institute of Health, Rome
- Giovanni Rezza – Infectious Disease Department, Italian National Institute of Health, Rome
- Sivio Brusaferrero – President, Italian National Institute of Health, Rome

Scientific secretariat

- Silvia Declich, Maria Elena Tosti – National Centre for Global Health, Italian National Institute of Health, Rome
- Rita Ferrelli – Education Service, Italian National Institute of Health, Rome
- Flavia Riccardo, Paola Stefanelli – Infectious Disease Department, Italian National Institute of Health, Rome

Scientific secretariat for distance education (FAD) methods and technologies

- Donatella Barbina, Debora Guerrera, Pietro Carbone, Alessandra Di Pucchio – Education Service, Italian National Institute of Health, Rome

Organisational secretariat

- Simonetta Crateri, Alessia Ranghiasi, Federica Magnani – National Centre for Global Health, Italian National Institute of Health, Rome
- Roberta D’Angelo – Education Service, Italian National Institute of Health, Rome
- Alessia Caratelli – Infectious Disease Department, Italian National Institute of Health, Rome