

Addressing noncommunicable diseases in the COVID-19 response

Interim guidance

6 April 2020



1. Introduction

1.1 Background

Coronavirus disease 2019 (COVID-19) is highly transmissible, has substantial fatal outcomes in high-risk groups, and can cause huge societal and economic disruption.

The highest risk for developing severe and even fatal disease is among people over 60 years of age and people with underlying noncommunicable diseases (NCDs) such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease and cancer. These same diseases are the leading causes of death and disability in the Western Pacific Region and were responsible for 86% of all deaths and over 74% of premature deaths in 2016.

In many low-resource settings, the situation is compounded by health system capacities that are already stretched by the double burden of communicable and noncommunicable diseases. For example, in many Pacific islands, the prevalence of NCDs and risk factors is high, but health service delivery is hampered by the lack of trained providers and limited by geographic isolation. Emergencies expose and break down fragile health systems, limiting the delivery of basic health services across multiple levels of care.

This technical note provides general guidance on:

- reducing risks of COVID-19 infection and complications in the high-risk group of people living with NCDs, their caregivers and family members, as well as the public; and
- managing COVID-19 and continuing NCD care during the COVID-19 outbreak.

1.2 Target audience

People living with NCDs, their caregivers and family members, the public, health programme managers and health-care workers.

2. Reducing risks of COVID-19 infection and complications

2.1 Recommendations for people living with NCDs

People living with NCDs need to consider the following:

- Understand their increased risks for COVID-19 infection, severe disease and death.
- Be aware that infections are spread mostly through close contacts within households, hospitals and long-term living facilities, and thus need to be extremely vigilant in these settings.
- Comply with medical advice to keep NCDs controlled (e.g. take medications as prescribed).
- Strictly follow basic protective measures recommended by the World Health Organization (WHO) wash hands frequently and properly; maintain physical distancing; practise respiratory hygiene; avoid touching eyes, nose and mouth; and seek medical care early when symptomatic.
- Avoid travel to countries, areas or settings where disease transmission is known. These include mass gatherings and crowded areas.

- Stay updated about COVID-19 using reliable information sources such as the WHO website (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>) or relevant government agencies.

2.2 Recommendations for people living with NCDs, caregivers, family members and the public

In addition to following the basic protective measures described above, WHO recommends following general health guidelines to maintain a strong immune system. Refer to Fig. 1 for WHO's 12 tips to be healthy, some of which are detailed below.

Fig. 1. 12 tips to be healthy



Source: 9th Global Conference on Health Promotion – resources (<https://www.who.int/images/default-source/infographics/health-promotion/infographic-health-promotion-12-tips.jpg>)

2.2.1 Eat a healthy diet

Good nutrition and a healthy diet are essential to maintain optimal health and prevent communicable and noncommunicable diseases:

- Eat a variety of different foods, including vegetables and fruits. This is important as no single food source provides all the nutrients required for the body to stay healthy.
- Consume the right amount of food and drink to achieve and maintain a healthy body weight.
- Eat less saturated fats and trans-fats, sugar and salt.
- Follow diet restrictions or advice from health-care providers.
- For infants, start breastfeeding within 1 hour of birth. Exclusively breastfeed for 6 months, then introduce nutritionally adequate and safe complementary foods, while continuing breastfeeding up to 2 years of age or beyond.

2.2.2 Be physically active

Physical activity contributes to general good health. Regular physical activity is recommended for all ages and abilities, unless restricted by health-care providers:

- For adults and older adults: 150 minutes per week of moderate-intensity physical activity.
- For older adults with poor mobility: physical activity three or more days per week.
- For children: 60 minutes per day of moderate-to vigorous-intensity physical activity.
- For all ages: muscle-strengthening activities two or more days per week.

2.2.3 Avoid tobacco use

Tobacco use and exposure to second-hand smoke are major preventable risk factors of several NCDs.

People who use tobacco can take this opportunity to quit and lead a healthier lifestyle and protect others.

2.2.4 Avoid or minimize alcohol consumption

Excessive alcohol consumption can weaken the immune system, increasing the risk of viral infection. It can promote risky behaviour, which can compromise an individual's adoption of

preventive measures or delay health-seeking behaviour, if COVID-19 symptoms develop.

2.2.5 Manage stress

A variety of conditions, including upset stomach, hives and even heart disease, are linked to the effects of emotional stress.

Identify stressful behaviour and signs of stress (e.g. tense muscles, overtiredness, headaches or migraines) and their causes, and make changes in your lifestyle and balance personal and work aspects.

2.3 Recommendations for health programme managers and health-care providers

2.3.1 Manage COVID-19

Early case and contact identification, isolation and treatment are keys to successfully managing the COVID-19 outbreak, even more so among people living with NCDs.

Establish triage systems and algorithms to identify and prioritize severe and high-risk patients (e.g. people living with NCDs) for treatment and possible admission to intensive care units (ICUs), both before (e.g. staffed telephone hotlines) and at presentation to health-care facilities (e.g. triage counters). This will help manage demands on staff, facilities and supplies.

WHO has put together patient management guidelines for two scenarios for suspected COVID-19 cases:

- home care (<https://apps.who.int/iris/handle/10665/331473>)
- hospital management (<https://apps.who.int/iris/handle/10665/331446>).

WHO continuously reviews clinical developments as the disease and its management evolve. For updated WHO patient management guidelines, refer to <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management>.

2.3.2 Continue NCD care during the outbreak

Maintaining good control of NCDs and risk factors among patients is important, but health service provision during outbreaks is challenging.





Key actions to manage NCDs in an acute crisis are:

- Provide essential care for acute life-threatening conditions.
- Avoid discontinuation of treatment.
- Ensure access to essential diagnostic equipment.
- Establish referral mechanisms for conditions that cannot be managed at the primary care level.

For more details on key actions during the first 30–90 days of an emergency and thereafter, refer to <https://apps.who.int/iris/handle/10665/204627>.

A checklist defining the health services that should be available during emergencies at each level of care (community, primary, secondary and tertiary) is used by the Health Resources Availability Mapping System as a tool for assessing and monitoring health facilities, services and other resources. The list of NCD services is presented in Fig. 2.

Fig. 2 Health services for NCD prevention and control at the four levels of care during emergencies

LEVELS OF CARE		HEALTH SERVICES CHECKLIST
<p>Community Care (C)</p> <p>SELF-REFERRAL</p> <p>SUPERVISION</p>  <p>Services provided by trained village volunteers</p>	<ul style="list-style-type: none"> • Promote self-care, provide basic health care and psychosocial support, identify and refer severe cases for treatment, provide needed follow-up to people discharged by facility-based health and social services for people with chronic health conditions, disabilities and mental health problems 	
<p>PRIMARY CARE (P)</p> <p>REFERRAL</p>  <p>Health centre / dispensary or mobile clinic, Emergency Medical Team Type 1</p>	<ul style="list-style-type: none"> • Brief advice on tobacco, alcohol and substance abuse, healthy diet, screening and management of risks of cardiovascular disease (CVD), individual counselling on adherence to chronic therapies, availability of blood pressure (BP) apparatus, blood glucose and urine ketones test strips, and essential NCD drugs as per national list • Asthma and chronic obstructive pulmonary disease (COPD): classification, treatment and follow-up • Hypertension: early detection, management and counselling (including dietary advice), follow-up • Diabetes: early detection, management (oral anti-diabetic and insulin available), counselling (including dietary advice), foot care, follow-up • Identification of people with disabilities, basic advice and referral to specialist services (when needed) • Oral health and dental care • Psychological first aid for distressed people, survivors of assault, abuse, neglect, domestic violence, and linking vulnerable individuals/families with resources, such as health services, livelihood assistance etc. 	
<p>SECONDARY CARE (S)</p> <p>REFERRAL</p> <p>EARLY DISCHARGE</p>  <p>Rural or district hospital, Emergency Medical Team Type 2</p>	<ul style="list-style-type: none"> • Rehabilitation services and assistive device provision, including post-operative rehabilitation for trauma-related injuries • Inpatient care for management of mental disorders by specialized and/or trained and supervised non-specialized health-care providers 	
<p>TERTIARY CARE (T)</p>  <p>Regional or national referral hospitals, Emergency Medical Team Type 3</p>	<ul style="list-style-type: none"> • Rehabilitation services and assistive device provision, including post-operative rehabilitation for trauma-related injuries • Inpatient care for management of mental disorders by specialized and/or trained and supervised non-specialized health-care providers 	

Source: Adapted from WHO Health Resources Availability Mapping System (HeRAMS) (<http://iris.wpro.who.int/handle/10665.1/12623>)

Fig. 3 NCD emergency health kit contents organized by disease area

Hypertension & cardiac conditions	Diabetes & endocrine conditions	Chronic respiratory diseases	Mental health & neurological conditions	Other
Medicines Acetylsalicylic acid Amlodipine Bisoprolol Enalapril Furosemide Glyceriltrinitrate Hydrochlorothiazide Isosorbide dinitrate	Medicines Glübenclamide Metformin Levothyroxine Human insulin NPH Human insulin mix 70/30 Human insulin R Glucagon	Medicines Beclomethasone inhaler Prednisolone Salbutamol aerosol inhaler	Medicines Carbamazepine Fluoxetine Risperidone Sodium valproate 200mg & 500mg	Equipment Otoscope & ophthalmoscope set Pen flashlight Clinical digital thermometer
Equipment Stethoscope Sphygmomanometer Body tape measure	Equipment Glucometer	Equipment Peak flow meter		Renewables Cotton wool Examination latex gloves Adhesive tape
	Renewables Insulin syringes Lancets Blood strips Urine strips Swab alcohol pads			

Source: Slama S, Lee J, Aragno M, Laroche S, Hogerzeil H. The development of the noncommunicable diseases emergency health kit. East Mediterr Health J. 2018;24(1):92–98. https://www.rug.nl/research/portal/files/62782995/EMHJ_2018_24_01_92_98.pdf

Furthermore, the WHO Regional Office for the Eastern Mediterranean has developed an NCD emergency health kit to provide a structured set of essential medicines, equipment and renewables following disruption of normal medical services. It will supply the needs of a population of 10 000 people over a period of 3 months for the management of cardiovascular diseases (including hypertension), diabetes mellitus, chronic respiratory diseases, as well as some mental health and neurological conditions. The kit is currently being implemented in several countries. Its contents are shown in Fig. 3.

3. Guidance development

3.1 Acknowledgements

This document was developed by a guideline development group composed of staff from the WHO Regional Office for the Western Pacific (Division of Healthy Environments and Populations and the Division of Programmes for Diseases Control) and WHO headquarters (Department of Noncommunicable Diseases).

3.2 Guidance development methods

This document was developed based on a review of relevant WHO and external peer-reviewed publications. The following search terms were used: coronavirus, COVID-19, noncommunicable disease, NCD, emergencies.

Resources

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