



Chronic diseases and COVID-19

Patients with chronic conditions are at higher risk of a severe COVID 19 infection. Therefore, within our health programmes, where we support patients with chronic conditions, strong prevention and supportive measures need to be implemented to reduce risk of infection and to avoid their decompensation due to lack of access to chronic medication. This document addresses preparedness, preventive and supportive measures.

Persons at higher risk of severe COVID infection:

- Individuals older than 65 years
- those with pre-existing medical conditions:
 - diabetes
 - hypertension,
 - cardiovascular disease,
 - chronic respiratory disease
 - diseases affecting the immune system (patients under immunosuppressantsⁱ⁾)
 - cancer

Unknown if increased risk as no data, but possibleⁱⁱ⁾:

- malnutrition;
- sickle cell disease
- HIV, TB

Strong preventive and supportive measures need to be put in place to reduce the risk of infection, and to:

- avoid their decompensation due to lack of access to chronic medication, and by this overburdening the health system which is already overwhelmed
- decrease their exposure to others
- decrease their exposure through contact with health facilities
- be prepared in case of infection with COVID-19
- be prepared in case of decreased capacity to access health care (eg in case of lockdown, security constraints, closure of health facilities etc)

Prepare mitigation measures

- Work with Medlog to increase your availability of NCD drugs and renewable supplies
- Invest in **patient education** (clear explanation of side effects and why and when to come to the clinic before the refill of treatment), means longer consultation time or HR dedicated to patient education (as done in HIV programmes for patients and at least 1 companion). The role of the companion: chosen by the patient, can be a family member or a friend or whoever, who will have the responsibility to support the patient to take appropriately the treatment, will come to the clinic to take the refill in case the patient cannot to avoid exposure to COVID, avoiding public transport, security problems, hospitalization, or other situations



At health facility level

- Separate pathways with different entry points / places of consultation for chronic patients and those with acute conditions (ideally different building); if not possible have consultation times allocated for follow-up consultations which are not overlapping with the consultation times for acute conditions
- Otherwise consider screening at entry applying country up-dated specific case definition and give surgical mask at the reception to patients with respiratory symptoms, ideally with separate waiting room (with social distance of 1 meter, reduce number of caretakers unless indispensable)
- Register phone contact of patient, caregiver or companion
- Consider setting up telephone consultation hour; hotline (allocated phone, staff with clear instructions) – and remote consultations
- Consider providing health centers with cellular phone devices (for doctors, reception and pharmacy) with monthly allowance for 3 months
- Reinforce infection control prevention measures (handwashing with water and soap)
- Provide patients with clear guidance on red flags for their chronic condition, when and where to consult: self-management (see hereunder)
- Stockpile NCD medicines, and renewables to provide medicines to patients for 3 months as a minimum; some patients may even get more than 3 months treatment (pending on availability of medicines)
- Medicine distribution: consider special flow: dedicated flow at pharmacy, distribution to caretakers, at community level, code sent by phone to receive drugs at distribution pointⁱⁱ
- Lab exams: only for decompensation, consider having point of care tests
- Home visits: by health care worker, community health worker for follow-up?

Disease specific information

Diabetes

- Check with patients how they manage sick days, recognize hypo or hyperglycaemia and manage it
- ensure patients have enough supplies (medicines; strips) with buffer stock to manage their diabetes, including if they will need to be in quarantine (see Annexe 2 for details)

Asthma/COPD

- review patient's management plans and make sure all those who need a preventer are using one (effectively), preferably with a spacer
- make sure patients have an asthma action plan or know what to do in case of exacerbation of their asthma (which could occur with a respiratory illness)

Mental health patients on psychotropic medication

- consider case by case how to support these patients in case they are unable to access the healthcare facility due to movement restrictions because of illness or public measures

Hypertensionⁱⁱⁱ

- Patients suffering from hypertension should apply the same precautions as subjects in the same age category and with the same co-morbidity profile.
- We also recommend that antihypertensive pharmacological treatment should be continued without changes or interruptions, except for side effects or when clinically indicated.
- Routine use of ACE-Inhibitors or ARBs to treat raised blood pressure should continue and should not be influenced by concerns about COVID-19 infection.



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A note of caution! This statement reflects the clinical evidence at the time of publication and may need to be updated based on new evidence.

Annexes

Annexe 1 patient information general at community level

Annexe 2 patient information on diabetes

Annexe 1: General information for patients

For all:

- Keep at least 1-2 meters social distance
- Avoiding gatherings of people and crowds
- Wash your hands frequently with water and soap
- Protect others: Cough and sneeze into the crook of your arm or a tissue which you throw immediately away in closed bin
- Avoid shaking hands.

Persons with chronic conditions

- Get food supplies via a relative, neighbor, person from the community but without direct contact.
- Travel should be reduced to a minimum.
- Avoid sick people

Gather your supplies^{iv}:

- Phone numbers of your doctors and healthcare team, your pharmacy
- List of medications, doses
- Essential supplies
- Get extra refills on your prescriptions so you do not have to leave the house and get in touch with the health system (3 months?)

Develop a plan in case of illness:

- Identify a contact person to support, help with supplies etc
- Identify signs of decompensation of the underlying chronic condition (eg asthma difficulties to breathe, increased need of inhaler; diabetes: increased thirst, urination)
- What to do in case of decompensation of underlying chronic condition (eg asthma: potential increased use of asthma preventers; diabetes: sick day management rule; potential increased frequency of glucose checks)
- What to do in case of symptoms of COVID-19 (fever and/or cough and/or difficulty breathing):
 - whom to contact and how to get in touch with the health system according to the national plan
 - household protection measures to implement
- How to contact health care provider, person in community in case support needed for follow-up management of their chronic disease

Challenges that you may face as a patientⁱⁱ:

- Ability to reduce household transmission in overcrowded settings, as well for auto-isolation





Annexe 2 Information for patients: Diabetes^{iiiivvi}

Tips for sick days:

- Drink at least 2 to 3 liters of safe water within 24 hours. If you're having trouble keeping water down, have small sips every 15 minutes or so throughout the day to avoid dehydration. In the event of an inability to eat replace solid meals by taking sugars as a drink. Suitable substitutions are, sugar in tea (50 g sugar in 1 liter of tea-1 5 g of sugar corresponds to three full teaspoons); other liquids with sugar (50 g of sugar corresponds to half a liter of ordinary coke, lemonade or fruit juice). A salty soup, is highly recommended if there is thirst, as fluid and salt are needed to replace losses of water as a result of high vomiting, diarrhea or perspiration due to high body temperature.
- Never stop insulin and adjust dosage
- Increase testing
- If you are experiencing a low (blood glucose below 70 mg/dl or 4 mmol/l or your target range), eat 15 grams of simple carbohydrates that are easy to digest like, honey, jam, juice or regular soda, and re-check your blood sugar in 15 minutes to make sure you are coming up. Check your blood sugar extra times throughout the day and night
- If your blood sugar has registered high (blood glucose greater than 240mg/dl or 13.3 mmol/l) more than 2 times in a row, check for ketones in the urine to avoid Diabetes Keto Acidosis
- Call your doctor's office immediately, if you are vomiting with +++ ketones.
- Wash your hands and clean your injection and finger-stick sites with soap and water

When you call your doctor:

- Have your glucose and ketone reading available
- Keep track of your fluid consumption (you can use a 1-liter water bottle) and report
- Be clear on your symptoms (for example are nauseated? Just a stuffy nose?)
- Ask your questions on how to manage your diabetes

Signs of hyperglycemia, diabetes ketoacidosis

- Thirst or a very dry mouth
- Frequent urination
- High blood glucose levels
- High levels of ketones in the urine often occur when blood sugar is high. This can be a sign that the body is using fat and muscle for energy instead of sugar

Then, other symptoms appear:

- Constantly feeling tired
- Dry or flushed skin
- Nausea, vomiting, or abdominal pain
- Difficulty or more rapid breathing



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- Fruity odor on breath
- A hard time paying attention, or confusion

Ketoacidosis (DKA) is dangerous and serious. If you have any of the above symptoms, contact your health care provider IMMEDIATELY, or go to the nearest health care center.

Signs of hypoglycemia

- When blood sugar is too low, you may feel: sweaty, hungry, anxious, dizzy, strange, a loss of concentration, blurred or double vision, you may feel your heart beating.
- If you experience such a situation:
 - take sugar immediately (**3** lumps or **3** teaspoons) otherwise your blood sugar would go so low that you could become unconscious.
- Carry sugar close to hand (e.g. **3** sugar lumps in an empty film box, or if not available, Dextrose, biscuits, sweets).
- Always check that you have sugar with you in some form.
- Carry diabetes identification card. Inform family and colleagues about the potential danger of hypoglycemia. They should be advised to keep sugar at hand.

Treatment of hypoglycemia (if can test)

The 15-15 rule—have 15 grams of carbohydrate to raise your blood sugar and check it after 15 minutes. If it's still below 70 mg/dL or 4 mmol/l have another serving.

Repeat these steps until your blood sugar is at least 70 mg/dL or 4 mmol/l. Once your blood sugar is back to normal, eat a meal or snack to make sure it doesn't lower again. This may be:

- 1/2 cup of juice or regular soda (not diet)
- 1 tablespoon of sugar, honey

ⁱ <https://www.world-heart-federation.org/wp-content/uploads/WHF-COVID-19-GUIDELINES.pdf>

ⁱⁱ Covid-19 and chronic disease, Advice for OCG missions March 2020

ⁱⁱⁱ <https://ish-world.com/news/a/A-statement-from-the-International-Society-of-Hypertension-on-COVID-19/>;

Déclaration de la Société Suisse d'hypertension artérielle sur l'infection par COVID-19 et l'hypertension artérielle (19.3.2020); info@swisshypertension.ch • www.swisshypertension.ch

^{iv} <https://www.diabetes.org/diabetes/treatment-care/planning-sick-days/coronavirus>

^v Survival kit: the five minute education kit. A document for health care providers and patients

^{vi} <https://www.jdrf.org/coronavirus/>