



COVID-19

Comprehensive Guidelines for managing mild cases of COVID-19 at home

Released Wednesday, 1 April 2020
Mobile Version 1.0

If you have been advised by a healthcare professional, are waiting for COVID19 test results or cannot get to the hospital- the guideline helps you to take the necessary precautions and manage while at home and not spread virus to those around you.

LIST OF CONTENTS

List of Contents	1
Note.....	2
Contributors	2
1. Objective of the Document	3
2. What is Coronavirus and COVID-19?	3
2.1. Knowing COVID-19 symptoms	4
2.2. Who is at risk?	5
2.3. How to prevent?	5
3. COVID-19 Management.....	6
3.1. Confirming Signs and Symptoms.....	6
3.2. Managing COVID-19 with mild symptoms at home.....	7
3.2.1. Which patients can be managed at home?.....	7
3.2.2. How do we know if we can care at home?	8
3.2.3. For the first seven days.....	8
3.2.4. After first seven days.....	19
3.3. Managing COVID-19 with Severe Signs and Symptoms.....	20
4. Managing Contacts.....	20
4.1. Who is a Contact?	20
Annexure	22
Annex 1 - Checklist for isolation room / area trolley or table	22
Annex 2 - What to do when someone in your family gets sick?.....	23
Annex 3 - Use of Disinfectants.....	23
Annex 4 - Wearing Personal Protection Equipment (PPE)	26
Annex 5 - Removing Personal Protection Equipment (PPE)	28
Annex 6 - Checklist to be used for Patient Management and Vitals' Monitoring	29
Annex 7 - Ideal Isolation Room Layout	30
Annex 8 - List of websites to follow and stay updated.....	30
Annex 9 - Home Care for people with COVID-19 cases at home.....	30
List of Documents and Guidelines Reviewed.....	31

NOTE

These comprehensive guidelines have been developed by the listed contributors and after studying the listed documents and guidelines by WHO, CDC, ECDC and other leading public health institutions and experts for caring of a COVID-19 positive case with mild symptoms at home. However, understanding that COVID-19 is a novel disease with rapidly evolving protocols for precautions, quarantine and isolation on a day-to-day basis, please check for an updated version or WHO updated guidance on the same.

CONTRIBUTORS

Contributors

Prof. Nighat Mir Ahmed, Professor of Rheumatology, National Hospital
Dr Sumaira Farman Raja, Professor of Rheumatology, National Hospital
Dr Ahmed Saeed, Associate Professor Rheumatology, Gulab Devi Hospital
Dr Shabnum Sarfraz, Member Social Sector, Planning Commission, Government of Pakistan
Dr Naveed Syed, Consultant Communicable Disease Control, Public Health England
Dr Samia Latif, Consultant in Communicable Disease Control
Dr Saira Elaine Anwer Khan, Assistant Professor Rheumatology, Fatima Memorial Hospital
Dr Roomi Aziz, Technical Lead Health Data and Communication, P2impact
Dr Parveen Ali, Senior Lecturer, Sheffield University
Sidra Bashir, Public Health Associate, P2impact

Editing, Review and Compilation

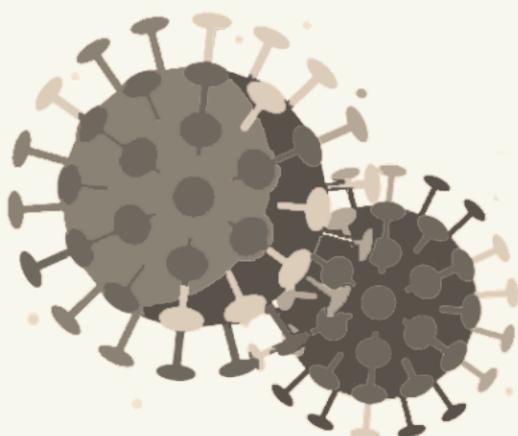
[P2impact](#)

1. OBJECTIVE OF THE DOCUMENT

This document provides information and guidance for public with no health/medical background, on prevention and control management of stable COVID-19 cases (with mild symptoms as elaborated later) at home.

2. WHAT IS CORONAVIRUS AND COVID-19?

Coronaviruses (CoV) are a large family of viruses that cause illnesses ranging from the common cold to more severe diseases such as Severe



Acute Respiratory Syndrome (SARS-CoV) in 2003 and Middle East Respiratory Syndrome (MERS-CoV) in 2012. The current strain is called SARS-CoV-2 and causes the clinical disease known as COVID-19 (Coronavirus Infectious Disease

2019) and is a novel strain first surfacing in December 2019. All of these viruses normally live in animal populations without causing disease in animals but sometimes pass to humans and cause human diseases (known as zoonotic¹ illnesses).

About one in six people become seriously ill. As this is viral pneumonia, antibiotics are of no use. The antiviral drugs we have against flu will not work, and there is currently no vaccine. Recovery depends on the strength of the immune system.

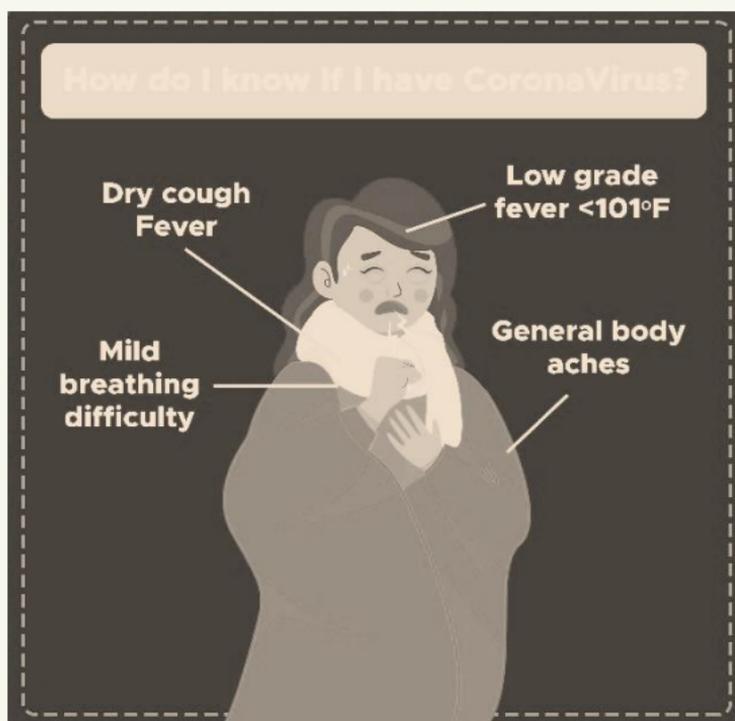
The COVID-19 coronavirus outbreak is a new illness and scientists are still assessing how it spreads from person to person, but similar viruses tend to spread via cough and sneeze droplets. When an infected person coughs or sneezes, they release droplets of saliva or mucus. These droplets can fall on people very near them and can be either directly inhaled or picked up on the hands then transferred when someone touches their face, causing infection. Hence the advice is to keep 2-3 metres away from people – especially if ill. Viruses can also be spread through droplets landing on surfaces such as seats on buses or trains or

¹ Nick Mark (2020) *A Seattle Intensivist's One-pager on COVID-19*, v2.6, Accessed 24 March 2020

desks in school. However, whether this is a main transmission route depends on how long viruses survive on surfaces which can vary from hours to 3 days.

There is anecdotal evidence that the virus can be spread by people before they have symptoms and so the advice below is based upon these assumptions.

2.1. Knowing COVID-19 symptoms



The following symptoms may appear **2-14** days after exposure².

Mild Signs and Symptoms

- ★ Fever
- ★ Fatigue
- ★ Cough (with or without sputum production)
- ★ Anorexia (loss of appetite)
- ★ Malaise (feeling of disease)
- ★ Muscle pain
- ★ Sore throat
- ★ Difficulty in breathing (tolerable)
- ★ Nasal congestion
- ★ Rarely: Diarrhoea, Nausea, Vomiting and Loss of smell

² Center for Disease Control and Prevention (CDC) (2020) *Coronavirus Disease 2019 (COVID-19)*. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html> (Accessed: 25 March 2020).

Emergency Warning Signs

- ★ Increasing difficulty in breathing (especially if suddenly increasing)
- ★ Persistent pain or pressure in chest
- ★ Severe and worsening fatigue
- ★ Bluish lips or face

It is critical that medical help is sought immediately in case of emergency warning signs, as this may rapidly progress into any of the clinical syndromes associated with COVID-19 (pneumonia, severe pneumonia, Acute Respiratory Distress Syndrome (ARDS), sepsis, septic shock).

2.2. Who is at risk?³

Any individual who has not previously been exposed to SARS-CoV-2 is potentially at risk of getting the infection. However, some people are found to be more vulnerable and may become more ill if infected. These people include:

- ★ People aged 60 years and older
- ★ People with long-term medical conditions such as diabetes, high blood pressure (Hypertension) and heart (cardiovascular) disease, HIV, Cancer, asthma or any condition affects respiratory function (breathing)
- ★ Pregnant women
- ★ People on immune modifying medication (immunosuppressants)

2.3. How to prevent?

How do I prevent myself and my family from getting Coronavirus?

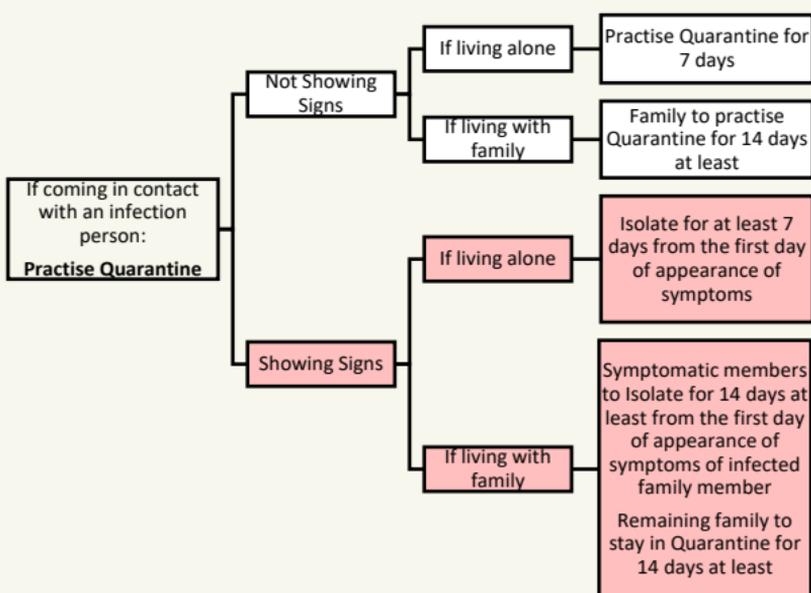
The infographic is divided into two rows of icons with text descriptions:

- Row 1:**
 - Wash your hands for at least 20 seconds frequently:** An icon of hands being washed under a running faucet.
 - Avoid touching your eyes, nose, and mouth:** An icon of a person's face with an 'X' over the eye, nose, and mouth.
 - Cover your cough or sneeze in your sleeve or into a tissue paper, and discard afterwards:** An icon of a person coughing into their elbow.
 - Clean and disinfect frequently touched surfaces daily:** An icon of a spray bottle and a door handle.
- Row 2 (Social Distancing):**
 - Social Distancing:** A large grey box with the text "Social Distancing".
 - Stay at a distance of at least two meters from others:** An icon of four people standing in a circle with lines between them.
 - Do not go near people who are sick:** An icon of a person with a red 'X' over their face.
 - Avoid shaking hands or hugging others:** An icon of two hands shaking with a red 'X' over it.
 - Avoid social gatherings or public places, unless necessary:** An icon of a group of people with a red 'X' over it.

³ UNICEF (2020) *Coronavirus disease (COVID-19): What parents should know*. Available at: <https://www.unicef.org/pakistan/coronavirus-disease-covid-19-what-parents-should-know> (Accessed: 24 March 2020).

3. COVID-19 MANAGEMENT

Follow the below protocol if you come into contact with a person infected with COVID-19 disease.



It is important to differentiate between the two protocols i.e. between isolation and quarantine.

Isolation: Separates sick people with a contagious disease from people who are not sick. In isolation, the infected person must stay away for at least seven days after the symptoms started, or until the symptoms completely go away⁴.

Quarantine: Separates people and restricts their movement if they were exposed to a contagious disease to see if they become sick. If a person/family is not sick but may have been exposed to someone who was infected, they must stay away from others for at least 14 days.⁵

3.1. Confirming Signs and Symptoms

- ★ In case of emergency signs, immediately call the helpline and/or visit a government designated public or private hospital.
- ★ If you are experiencing any of the mild signs and symptoms listed earlier, send a text on the official **Government of Pakistan COVID-19 Helpline +92 300 111 1166** for guidance and risk assessment.

⁴ Colorado Department of Public Health and Environment (CDPHE) (2020) *Isolation or Quarantine?* Available at: covid19.colorado.gov. (Accessed: 24 March 2020).

⁵ Colorado Department of Public Health and Environment (CDPHE) (2020) *Isolation or Quarantine?* Available at: covid19.colorado.gov. (Accessed: 24 March 2020).

- ★ If the Helpline responds that you have a positive chance of having COVID-19, call **any of the following helpline numbers** or your doctor to seek advice and further course of action.

Federal	1166, 115(Edhi)
Punjab	0800 99000, 0301-1102229, 042 99231669, 042 99231670, 1122
Sindh	021 99204405/0316-0111712
Balochistan	1166
KPK	1700

- ★ Follow the instructions provided through the helplines, and if recommended, get tested for COVID-19.
- ★ Until the results arrive, assume yourself/ family member are infected and practice all the necessary precautions, including self-isolation.
- ★ In case of no signs and symptoms of disease, doctor may still advise the person to stay in home under isolation.

Travelling to the Health Facility

- ★ Wear a mask while travelling to seek care, cover the mouth and nose during coughing or sneezing with a medical mask, tissue, or a sleeve or flexed elbow, followed by hand hygiene) and keep hands clean.
- ★ Avoid public transportation. Call ambulance or use personal vehicle.
- ★ Stand or sit as far away from others as possible (at least 1 metre) when in transit and when in the health facility.
- ★ Clean any surfaces that may have been infected with droplets of sneeze or cough, with soap or detergent.

3.2. Managing COVID-19 with mild symptoms at home

3.2.1. Which patients can be managed at home?

Patients with mild symptoms: Defined as, uncomplicated upper respiratory tract viral infection with symptoms such as fever, fatigue, cough (with or without sputum production), anorexia, malaise, muscle pain, sore throat, difficulty in breathing (Dyspnea), nasal congestion, or headache. Rarely, patients may also have diarrhoea, nausea, and vomiting and anosmia

Patients with low risk of poor outcome: Such as those who are below 60 years and have no lung or heart disease, diabetes, cancer, renal failure, or immune-compromising conditions.

3.2.2. How do we know if we can care at home?

In cases in which care is to be provided at home, if and where feasible, a trained Health Care Worker should conduct an assessment to verify

- ★ Suitability of the residential setting for providing care;
- ★ Capability of patient and the family to adhere to the home care isolation precautions (e.g. hand hygiene, respiratory hygiene, environmental cleaning, limitations on movement around or from the house) and can address safety concerns (e.g., accidental ingestion of and fire hazards associated with using alcohol-based hand rubs).
- ★ Ability to establish a communication link with health care provider or public health personnel, or both, for the duration of the home care period (until the patient’s symptoms have completely resolved)

3.2.3. For the first seven days

The following instructions for self-isolation needs to be followed. (see the column on the right) in **[A] Guidelines** below.



[A] Guidelines for general caution, quarantine and isolation

The guidelines for isolation and quarantine build upon general precautions advisable for COVID-19, and hence have been detailed together in the following. Guidelines specific/exclusive for isolation only are in light purple to highlight. Also see Annex 9.

	Instructions	General	Quarantine	Isolation
KEY PREVENTIVE STEPS	Avoid wearing watches, rings, non-washable hair ties due to difficulty in repeated dis-infecting	✓	✓	✓
	Wash hands with soap regularly for 20 seconds at least	✓	✓	✓
	Don't touch face, eyes, nose, mouth	✓	✓	✓

		Instructions	General	Quarantine	Isolation
		Maintain 3 x arm's length distance from others i.e. Avoid physical contact with people i.e. shaking hands, hugging etc.	✓	✓	✓
		Sneeze or cough in the nook of your elbow, sleeve or tissues, and discard the tissue after use into the bin	✓	✓	✓
		Do not share towels or a bed with those who are vulnerable	✓	✓	✓
		Perform hand hygiene after any type of contact with patients or their immediate environment, as well as before and after preparing food, before eating, after using the toilet, and whenever hands look dirty. If hands are not visibly dirty, an alcohol-based hand rub can be used. For visibly dirty hands, use soap and water.		✓	✓
		Individuals who cannot tolerate a medical mask should use rigorous respiratory hygiene; that is, the mouth and nose should be covered with a disposable paper tissue when coughing or sneezing. Materials used to cover the mouth and nose should be discarded or cleaned appropriately after use (e.g. wash handkerchiefs using regular soap or detergent and water).		✓	✓
LIVING ARRANGEMENTS	KEY STEPS	Do not allow visitors until the patient has completely recovered and has no signs or symptoms of COVID-19.			✓
		Do not re-use single-use masks or gloves			✓
		Remove the mask using the appropriate technique – that is, do not touch the front, but instead untie it. Discard the mask immediately after use and perform hand hygiene.			✓
		Patient should wear a medical mask to contain respiratory secretions as much as possible, and changed daily.			✓
		Establish a way to communicate with a health care provider for the duration of the observation/isolation period (Care-givers or patients)			✓
	ARRANGING FOR VULNERABLE PEOPLE	If the infected person lives with someone who is 65 years or over, has a long-term condition, is pregnant or has a weakened immune system, try to arrange for these vulnerable group of people to stay with well friends and family for 14 days. If that is not possible, try to keep away from each other as much as possible and stay in different rooms. Other healthy family members should also stay away from the infected person.			✓

Instructions		General	Quarantine	Isolation
ISOLATE WITH A SEPARATE ROOM	Isolate preferably a room with adequate ventilation, attached bath and exhaust fan. See Annex 7 for a preferable lay-out of the room.			✓
	Ensure that appropriate hand-hygiene supplies are available			✓
	Post signs on the door indicating that the space is an isolation area			✓
	Remove all non-essential furnishing or items, and ensure that the essential furniture is easy to clean, and does not conceal or retain dirt or moisture within or around it.			✓
	If possible, use an un-carpeted room to avoid generation of aerosol and make disinfection easier.			✓
	Keep water pitchers and cups, tissue wipes and items necessary for personal hygiene within the patient's reach			✓
	If possible: dedicate non-critical patient-care equipment (e.g. stethoscope, thermometer, blood pressure cuff and sphygmomanometer) to the patient. Thoroughly clean and disinfect patient-care equipment that is required for use by other patients before use			✓
	Ensure availability of mobile phone with the patient as means of communication			✓
	Separate eating utensils. Preferably switch to disposable plates if possible and discard after eating (see waste management instructions as well)			✓
	Use dedicated linen and eating utensils for the patient		✓	✓
	Separately wash eating utensils as well as laundry (see laundry instructions)		✓	✓
	Limit the movement of patient in the house and minimize shared space.			
	ESTABLISH AN ANTE-ROOM/ CHANGE ROOM	Stock the sink area with suitable supplies for hand washing, and alcohol-based hand rub, near the point of care and the room door.		
Stock the PPE supply and linen outside the isolation room or area (e.g. in the change room).				✓
Set up a trolley outside the door to hold PPE. A checklist may be useful to ensure that all equipment is available (see sample checklist Annex 1).				✓
Place appropriate waste bags in a bin. If possible, use a touch-free bin. Ensure				✓

Instructions		General	Quarantine	Isolation	
		that used (i.e. dirty) bins remain inside the isolation rooms.			
		Place a puncture-proof container for sharps disposal inside the isolation room or area.			✓
		Place an appropriate container with a lid outside the door for equipment that requires disinfection or sterilization.			✓
		Keep adequate equipment required for cleaning or disinfection inside the isolation room or area, and ensure scrupulous daily cleaning of the isolation room or area.			✓
		Ensure that visitors consult the health-care worker in charge (who is also responsible for keeping a visitor record) before being allowed into the isolation areas			✓
	ENTERING ISOLATION ROOM	Collect all equipment needed (details provided in Annex 1- Checklist)			✓
		Perform hand hygiene with an alcohol-based hand rub (preferably when hands are not visibly soiled) or soap and water			✓
		Put on PPE in the order that ensures adequate placement of PPE items and prevents self-contamination and self-inoculation while using and taking off PPE; an example of the order in which to don PPE when all PPE items are needed is hand hygiene, gown, mask or respirator, eye protection and gloves (see Annex 4 and 5 – Wearing and Removing Personal Protective Equipment)			✓
		Caregivers should wear a medical mask that covers their mouth and nose when in the same room as the patient. Masks should not be touched or handled during use. If the mask gets wet or dirty from secretions, it must be replaced immediately with a new clean, dry mask			✓
		LEAVING ISOLATION ROOM	Either remove PPE in the anteroom or, if there is no anteroom, make sure that the PPE will not contaminate either the environment outside the isolation room or area, or other people.		
Remove PPE in a manner that prevents self-contamination or self-inoculation with contaminated PPE or hands. – remove the most contaminated PPE items first;				✓	

Instructions		General	Quarantine	Isolation
IF SEPARATE ROOM CANNOT BE ARRANGED	<ul style="list-style-type: none"> – perform hand hygiene immediately after removing gloves; – remove the mask or particulate respirator last (by grasping the ties and discarding in a rubbish bin); – discard disposable items in a closed rubbish bin; – put reusable items in a dry (e.g. without any disinfectant solution) closed container; an example of the order in which to take off PPE when all PPE items are needed is gloves (if the gown is disposable, gloves can be peeled off together with gown upon removal), hand hygiene, gown, eye protection, mask or respirator, and hand hygiene 			
	Perform hand hygiene with an alcohol-based hand rub (preferably) or soap and water whenever un-gloved hands touch contaminated PPE items.			✓
	Do not use shared spaces (i.e. kitchens) at the same time.			✓
	Wear masks and cover mouth if have to move around in areas shared with other family members.			✓
	Limit the number of caregivers. Ideally, assign one person who is in good health and has no underlying chronic or immunocompromising conditions.			✓
	Ensure that shared spaces (e.g. kitchen, bathroom) are well ventilated (keep windows open).		✓	✓
	Do not share a bathroom. If there is only one bathroom let others use the bathroom first and thoroughly clean it after the infected person has used it (with bleach/detergent or soapy water)			✓
GENERAL CONTACT	Do not have contact with anyone who has symptoms	✓	✓	NA
	Work from home where possible		✓	✓
	Make sure that shared spaces in the home/office have good air flow, such as by an air conditioner or an opened window, weather permitting		✓	✓
	Use online services for groceries if possible.		✓	✓
	Practise hygiene when received delivered food, especially while handling currency notes, bags, boxes etc.		✓	✓
MOVING IN PUBLIC	Do not use public transport or taxis as much as possible	✓	✓	✓
	If going out, stay at least two-three metres away from others to prevent transmission of the virus – practise safe physical distancing	✓	✓	✓

	Instructions	General	Quarantine	Isolation
	If moving in health facilities or places with expected positive or suspect cases around, wear a mask	✓	✓	NA
	Avoid unnecessary trips to public places, including restaurants/ cafes/ hotels/ malls/ cinemas/ vacations	✓	✓	✓
	Do not visit doctor, hospital, surgery, a pharmacy or hospital in case of manageable/normal symptoms or other common ailments but ring your doctor or helpline for advice	✓	✓	✓
	Do not have visitors, such as friends and extended family at home		✓	✓
WHEN ENTERING THE HOUSE	Avoid touching any surface/ door handle until you wash your hands. Else disinfect the gate/ door after washing hands too	✓	✓	NA
	Wash hands with soap and water for at least 20 seconds	✓	✓	✓
	Wipe the items you use frequently (e.g. laptop keyboard, mouse, mobile, mobile cover, pen, door, car keys, wallet, glasses, car steering wheel and door handles, bike handles with alcohol wipes or cloth wetted with soapy water)		✓	✓
	Leave shoes outside the door		✓	✓
STAYING PHYSICALLY FIT	Do light exercise such as a walk, jog or ride a bicycle to keep fit. However, avoid public parks and always keep a safe distance from anyone else (at least 2-3 metres).		✓	✓
	Eat nutritious food and stay hydrated	✓	✓	✓
	Continue to take medications for any underlying health condition such as Diabetes, Hypertension, other illnesses like asthma, psychiatric disorders, renal diseases etc. Avoid ibuprofen	✓	✓	✓
TAKING CARE OF MENTAL HEALTH	Keep in touch with friends and family using remote technology: i.e. phone, internet and social media	✓	✓	✓
	Engage in playing board games such as Scrabble, Monopoly, Cards, Carrom Board.	✓	✓	✓
	Read books, watch movies and use the plethora of social media entertainment options available	✓	✓	✓
	People who are feeling stressed should avoid reading, watching and listening to COVID-19 related news too much	✓	✓	✓
	In case of mental health advice, reach out to helplines are offering mental counselling for COVID19.	✓	✓	✓

[B] House-Keeping Instructions



Stringent house-keeping instructions must be followed, due to the reason that the coronavirus droplets are known to survive on different surfaces for varying durations. To elaborate this, house-keeping, laundry and related instructions have also been elaborated below.

Details on use of disinfectants: alcohol and bleach have been provided in **Annex 3**.

House-Keeping Instructions		General	Quarantine	Isolation
HOUSE-KEEPING AND CLEANLINESS	CLEANING THE PATIENT'S ROOM AND EQUIPMENT		✓	✓
	Clean horizontal surfaces in isolation rooms or areas – focusing particularly on surfaces where the patient has been lying or has frequently touched, and immediately around the patient's bed – regularly and on discharge.		✓	✓
	Use damp cleaning (moistened cloth) rather than dry dusting or sweeping (to avoid the possible generation of aerosols of ARI pathogens)		✓	✓
	Ensure that equipment used for cleaning and disinfection is cleaned and dried after each use.		✓	✓
	Laundry/wash mop heads daily and dry them thoroughly before storage or reuse		✓	✓

House-Keeping Instructions		General	Quarantine	Isolation
	Use disinfectant to wipe down surfaces used by patients who are known or suspected to be infected with an ARI of potential concern		✓	✓
	After use, utility gloves should be cleaned with soap and water and decontaminated with 0.1% sodium hypochlorite solution. Single-use gloves (e.g. nitrile or latex) should be discarded after each use. Perform hand hygiene before putting on and after removing gloves.		✓	✓
	Clean and disinfect bathroom and toilet surfaces at least once daily. Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% sodium hypochlorite should be applied.		✓	✓
	Daily clean and disinfect surfaces that are frequently touched in the room where the patient is being cared for, such as bedside tables, bed frames, and other bedroom furniture. Regular household soap or detergent should be used first for cleaning, and then, after rinsing, regular household disinfectant containing 0.1% sodium hypochlorite (i.e. equivalent to 1000 ppm) should be applied. (See Annex 3)			✓
	Change cleaning solutions, cleaning cloths and mop heads frequently, according to health-care facility's policies as during wet cleaning, cleaning solutions and equipment soon become contaminated			✓
	Do not spray (i.e. fog) occupied or unoccupied rooms with disinfectant; this is a potentially dangerous practice that has no proven disease-control benefit			✓
	In case of carpeted isolation room, use a vacuum cleaner that is equipped with a high-efficiency particulate air (HEPA) filter, if available			✓
	If an area has been heavily contaminated, such as with visible bodily fluids, from a person with COVID-19, consider using protection for the eyes, mouth and nose, as well as wearing gloves and an apron before beginning to disinfect. Try to keep the exposed area closed and secure for 72 hours as the amount of virus living on surfaces will have reduced significantly by 72 hours, and then proceed to clean and disinfect as advised earlier.			✓
	Clean commonly used surfaces at home such as door handles, cupboard handles, water taps, over	✓	✓	✓

	House-Keeping Instructions	General	Quarantine	Isolation
	handles, grab-rails in corridors and stairwells, switch board, kettles and phones regularly with disinfectant wipes or sodium hydrochloride-based cleaners (purchase or make with cloth and disinfectants like Dettol)			
	Wherever possible, wear disposable or washing-up gloves and aprons for cleaning.	✓	✓	✓
	Use a disposable cloth and first clean hard surfaces with warm soapy water. Then disinfect these surfaces with the cleaning products like bleach.	✓	✓	✓
	Dispose of the cleaning material, or wash and let it dry in sun for at least eight hours before re-using it.	✓	✓	✓
	After removing gloves, aprons and other protection used while cleaning, wash hands regularly with soap and water for 20 seconds.	✓	✓	✓
	Avoid creating splashes and spray when cleaning		✓	✓
LAUNDRY MANAGEMENT	Regular laundry can be managed as per usual protocol.	✓	✓	✓
	Wear gloves while handling laundry of COVID-19 suspect or positive case		✓	✓
	Clean all surfaces around the washing machine and wash hands thoroughly after handling laundry of COVID-19 suspect and positive cases.		✓	✓
	All cloths, mop heads, cleaning tools including tissues, gloves, masks and aprons used for cleaning purposes must be disposed of in garbage bags once the period of isolation/ quarantine is complete.		✓	✓
	Remove large amounts of solid material (e.g. faeces) from heavily soiled linen (while wearing appropriate PPE), and dispose of the solid waste in a toilet before placing the linen in the laundry bag			✓
	Avoid sorting linen in patient-care areas. Place contaminated linen directly into a laundry bag in the isolation room or area with minimal manipulation or agitation, to avoid contamination of air, surfaces and people			✓
	Wash and dry linen according to routine standards and procedures of the health-care facility. For hot-water laundry cycles, wash with detergent or disinfectant in water at 70 °C (160 °F) for at least 25 minutes. If low-temperature (i.e. < 70 °C; < 160 °F) laundry cycles are used, choose a chemical that is suitable for low-temperature washing when used at the proper concentration			✓
WASTE MANAGEMENT	Perform hand hygiene before and after handling waste	✓	✓	✓
	Any cloths and mop heads used must be disposed of and should be put into waste bags		✓	✓
	The cleaning material used to disinfect a space exposed to a COVID-19 case should be double-bagged: Once a garbage bag is three-quarters full,		✓	✓

	House-Keeping Instructions	General	Quarantine	Isolation
	tie the bag. Place the first bag in a second bag, which should also be tied.			
	Handle faeces with caution to avoid possible generation of aerosols (e.g. during removal of faeces from bedpan, commode or clothing, or when spraying reusable incontinence pads with water)			✓
	Flush liquid waste (e.g. urine) or solid faecal waste into the sewerage system, if there is an adequate system in place			✓
	Ensure that care providers use appropriate PPE whenever there is risk of splash or spray during handling of waste			✓
	Place used equipment and soiled linen and waste, including gloves and masks, directly into containers or bags in the isolation room or area.			✓
	Double-bagged items should be stored securely for 72 hours then thrown away in the regular rubbish after cleaning is finished. This is to ensure that the bags don't open or burst during transport			✓

[C] Recording Vitals

While managing patient at home, take **vitals every 4-6 hours** (can be taken by patient or care-giver). Use the Monitoring Chart furnished in **Annex 6**.

Parameter	Alert Doctor if:
B P (upper)	Less than 100 mm HG
B P (lower)	Less than 60 mm HG
Pulse	More than 100 beats/min
Temp	More than 39 C
Respiratory rate	More than 30 breaths/min
Pulse Oximetry*	Less than 92% oxygen saturation
Consciousness/ confusion	Patient makes a mistake on 2 of below 3 questions: <ul style="list-style-type: none"> - What is the time of day? - Where are you? - Who am I?

[D] Managing COVID-19 specific Medicines

Follow the doctor's advice for treatment protocol and diagnostic tests. Any treatment should be prescribed by a specialist doctor who has experience in dealing with COVID-19. Patients are not advised to self-medicate other than simple painkillers (like Paracetamol but avoiding Ibuprofen) or using ORS.

[E] Stocking at Home in case of Quarantine/ Self-Isolation/ Possible Curfew/ Lockdown

Stocking Food Pantry	
Non-perishable & dry foods	<ul style="list-style-type: none"> ★ Flour, rice, cereals, legumes (lentils), pastas ★ Oil, salt and pepper, regular spices ★ Tea, sugar, coffee, powder milk ★ Dried fruit and nuts ★ Shelf-stable drinks and sauces ★ Packages chips, nuts, biscuits etc.
Meat, Fruits and Vegetables	<ul style="list-style-type: none"> ★ Meat and poultry (ideally vacuum-sealed) like chicken, beef, mutton etc. ★ Seasonal fruits and vegetables. ★ Do not over-stock due to expected spoilage and knowing the electricity situation in the country.
Stocking other essentials	
Regular medicines	<ul style="list-style-type: none"> ★ Keep a one-month supply of medications for on-going chronic ailments like diabetes, hypertension, cardiac diseases, GIT disorders, psychiatric disorders etc. ★ Keep 1-2 leaves of: Panadol, Panadol CF, Paracetamol, Vicks, Disprin, Ponston, Imodium, Entox, Flagyl ★ Thermometer (preferably not mercury one)
Baby Care	<ul style="list-style-type: none"> ★ Nappies (Diapers) and sanitation requirements ★ Formula milk, baby wipes and other infant needs for upto 3 weeks at least
Toiletries, Hygiene supplies and protective supplies	<ul style="list-style-type: none"> ★ Masks ★ Gloves ★ Liquid Sanitizer ★ Apron ★ Shower-caps ★ Plastic sheet ★ Cotton (to make swabs at home) ★ Alcohol-based hand-rubs ★ Soaps ★ Toothpaste, Body wash ★ Shampoo, conditioner and skincare products ★ Feminine hygiene products (Sanitary pads) ★ Towels ★ Single- use Tissue Papers, Paper Towels, Napkins

	<ul style="list-style-type: none"> ✦ Extra set of Bed Linen
House-Keeping Supplies	<ul style="list-style-type: none"> ✦ Laundry detergent (soap, liquid or powder) ✦ Disinfectants to keep surfaces clean (bleach and alcohol. See Annex 3) ✦ Garbage bag liners ✦ Liquid Surface Cleaners and Disinfectants ✦ Dusters

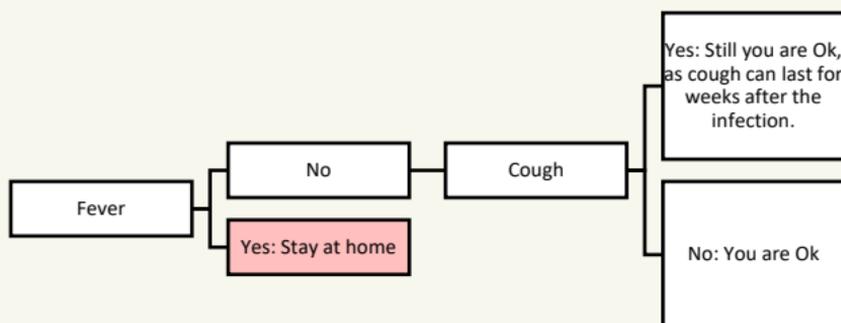
In addition to this material, in the following is a list of additional items required in order to care for a COVID-19 positive patient at home (if presenting with mild symptoms and after discussion and consultation with a healthcare provider).

Additional Stocking material specific for care of COVID-19 positive cases at home

	Items	Can be procured/arranged from
For Patient Care and Personal Protective Equipment for Care-Giver at home	✦ Eye protection (visor or goggles or regular glasses)	At home
	✦ Face masks	Local Pharmacy
	✦ Reusable vinyl or rubber gloves for environmental cleaning	Local superstore/ Grocery Store
	✦ Latex single use gloves for clinical care	Local Pharmacy
	✦ Hair cover (optional)	Local Pharmacy
	✦ Particulate respirator (N95, FFP2 or equivalent)	National chain pharmacies/ larger pharmacies
	✦ Medical (surgical or procedure) masks	Local Pharmacy
	✦ Gowns: Single-use long-sleeved fluid-resistant gowns	Surgical distributors near teaching hospitals
	✦ Gowns: Reusable non-fluid resistant	Surgical distributors near teaching hospitals
	✦ Plastic Aprons	Local superstore
	✦ Large plastic bags, linen bags, collection container	Local superstore/ Grocery Store

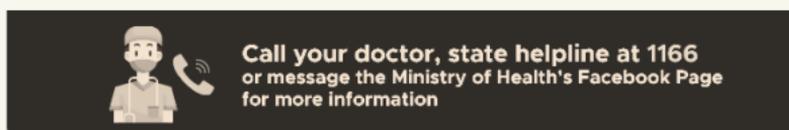
3.2.4. After first seven days

Check status of fever and cough and decide accordingly. Ideally at least 72 hours should have passed since recovery of symptoms (defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms). WHO also recommends that isolated patients remain isolated for an additional two weeks after the symptoms resolve.



3.3. Managing COVID-19 with Severe Signs and Symptoms

If you/family member develop above-mentioned **emergency warning signs** then you should immediately seek medical help by calling the **government helpline (1166) or ambulance service (1122 in case of Punjab and 115 for Edhi)** and following the instructions to see the relevant nearby health facility with the possibility of getting admitted.



6

4. MANAGING CONTACTS

4.1. Who is a Contact?

Use Annex 2 to know what to do if someone from the family is also sick. Persons (including caregivers and family members) who have been exposed to individuals with suspected COVID-19 are considered contacts and should be advised to monitor their health for 14 days from the last day of possible contact. A contact is a person who is involved in any of the following from 2 days before and up to 14 days after the onset of symptoms in the patient:

- ★ Having face-to-face contact with a COVID-19 patient within 1 meter and for >15 minutes;
- ★ Providing direct care for patients with COVID-19 disease without using proper personal protective equipment;
- ★ Staying in the same close environment as a COVID-19 patient (including sharing a workplace, classroom or household or being at the same gathering) for any amount of time;

⁶ Graphics by [Wakhra Studios](#)

- ★ Travelling in close proximity with (that is, within 1 m separation from) a COVID-19 patient in any kind of conveyance;
- ★ and other situations, as indicated by local risk assessments.

- ★ **Ideally a health care provider should be contacted to:**
- ★ Seek instructions in advance about when and where to seek care if the contacts become ill, the most appropriate mode of transportation to use, when and where to enter the designated health care facility, and which precautions should be followed.
- ★ Update of the health of the contacts regularly (ideally through in-person visits, else by phone)
- ★ **If a contact develops symptoms, followed instructions provided under 3.1**

ANNEXURE

Annex 1 - Checklist for isolation room / area trolley or table

This checklist may be printed and used while managing patient in isolation. The following items should be kept on the trolley at all times so that PPE is always available for health care workers/ patient attendant.

Equipment	Stock Present
Eye protection (visor or goggles or regular glasses)	
Face shield (providing eye, nose and mouth protection i.e. masks)	
Reusable vinyl or rubber gloves for environmental cleaning	
Latex single use gloves for clinical care	
Hair cover (optional)	
Particulate respirator (N95, FFP2 or equivalent)	
Medical (surgical or procedure) masks	
Gowns and aprons Single-use long-sleeved fluid-resistant gowns OR reusable non-fluid resistant gowns with plastic aprons if splashing is anticipated.	
Alcohol-based hand rub	
Plain soap (liquid is possible)	
Clean single-use towels e.g. paper towels	
Appropriate detergent for environmental cleaning and disinfectant for disinfection for surfaces, instruments or equipment	
Large plastic bags	
Linen bags	
Collection container for used equipment	

Annex 2 - What to do when someone in your family gets sick?



Annex 3 - Use of Disinfectants

The viruses and bacteria that cause ARIs can survive in the environment for variable periods of time (hours to days). The burden of such microorganisms can be reduced by cleaning, and infectious agents can be inactivated by the use of standard hospital disinfectants. Environmental cleaning and disinfection is intended to remove pathogens or significantly reduce their numbers on contaminated surfaces and items, thus breaking the chain of transmission. Disinfection is a physical or chemical means of killing microorganisms (but not spores), and should be used for non-critical medical equipment used or shared by patients.

- ★ No disinfection is required for surfaces and equipment that do not come into direct contact with patients. These surfaces or equipment should be thoroughly cleaned between patients
- ★ Clean equipment or surfaces in a way that avoids possible generation of aerosols; this process alone significantly reduces the bio-burden of microorganisms.
- ★ When disinfection is required, ensure that cleaning is done before disinfection. Items and surfaces cannot be disinfected if they are not first cleaned of organic matter (e.g. patient excretions, secretions, dirt and soil).

Using Alcohol

Alcohol is effective against influenza virus (252). **Ethyl alcohol (70%)** is a powerful broad-spectrum germicide and is considered generally superior to isopropyl alcohol.

Use: Alcohol is often used to disinfect small surfaces (e.g. rubber stoppers of multiple-dose medication vials, and thermometers) and occasionally external surfaces of equipment (e.g. stethoscopes and ventilators). **Precautions:** Since alcohol is flammable, limit its use as a surface disinfectant to small surface-areas and use it in well-ventilated spaces only. Prolonged and repeated use of alcohol as a disinfectant can also cause discoloration, swelling, hardening and cracking of rubber and certain plastics

Using Bleach

Bleach is a strong and effective disinfectant – its active ingredient **sodium hypochlorite** is effective in killing bacteria, fungi and viruses, including influenza virus – but it is easily inactivated by organic material.

Use: Diluted household bleach disinfects within 10–60 minutes contact time, is widely available at a low cost, and is recommended for surface disinfection in health-care facilities.

Precautions: However, bleach irritates mucous membranes, the skin and the airways; decomposes under heat and light; and reacts easily with other chemicals. Therefore, bleach should be used with caution; ventilation should be adequate and consistent with relevant occupational health and safety guidance. Improper use of bleach, including deviation from recommended dilutions (either stronger or weaker), may reduce its effectiveness for disinfection and can injure health-care workers. Bleach can corrode metals and damage painted surfaces.

Preparing diluted bleach

To prepare and use diluted bleach:

- ★ Use a mask, rubber gloves and waterproof apron; goggles also are recommended to protect the eyes from splashes;
- ★ Mix and use bleach solutions in well-ventilated areas;
- ★ Mix bleach with cold water (hot water decomposes the sodium hypochlorite and renders it ineffective);
- ★ If using bleach containing 5% sodium hypochlorite, dilute it to 0.05%

Sodium Hypochlorite concentration and use

Starting Solution: Most household bleach solutions contain 5 % sodium hypochlorite (50 000 parts per million (ppm) available chlorine)

Recommended dilution: 1:100 dilution of 5% sodium hypochlorite in the usual recommendation. Use 1 part bleach to 99 parts cold tap water for disinfection of surfaces. Adjust ratio of bleach to water as needed to achieve appropriate concentration

of sodium hypochlorite. For example, for bleach preparation containing 2.5% sodium hypochlorite, use twice as much bleach (i.e. 2 parts bleach to 98 [parts water])

Available chlorine after dilution: For bleach preparations containing 5% sodium hypochlorite, a 1:100 dilution will yield 0.05% or 500 ppm available chlorine. Bleach solutions containing other concentrations of sodium hypochlorite will contain different amounts of available chlorine when diluted.

Contact time for different uses: Disinfection by wiping of nonporous surfaces required a contact time of > 10 minutes. Disinfection by immersion of items require a contact time of 30 minutes at least. Note: Surfaces must be cleaned of organic materials such as secretions, mucus, vomit, faeces, blood or other body fluids before disinfection or immersion.

Precautions while using bleach

- ★ Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes, and consult a physician.
- ★ Do not use bleach together with other household detergents, because this reduces its effectiveness and can cause dangerous chemical reactions. For example, a toxic gas is produced when bleach is mixed with acidic detergents, such as those used for toilet cleaning, and this gas can cause death or injury. If necessary, use detergents first, and rinse thoroughly with water before using bleach for disinfection.
- ★ Undiluted bleach emits a toxic gas when exposed to sunlight; thus, store bleach in a cool, shaded place, out of the reach of children.
- ★ Sodium hypochlorite decomposes with time. To ensure its effectiveness, purchase recently produced bleach, and avoid over-stocking.
- ★ If using diluted bleach, prepare the diluted solution fresh daily. Label and date it, and discard unused mixtures 24 hours after preparation.
- ★ Organic materials inactivate bleach; clean surfaces so that they are clear of organic materials before disinfection with bleach.
- ★ Keep diluted bleach covered and protected from sunlight, and if possible, in a dark container and out of the reach of children.

Annex 4 - Wearing Personal Protection Equipment (PPE)



- 1**
- Identify hazards and manage risk.
 - Gather the necessary PPE.
 - Plan where to put on and take off PPE.
 - Do you have a buddy? Mirror?
 - Do you know how you will deal with waste?

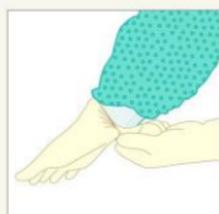


- 2** Put on a gown.

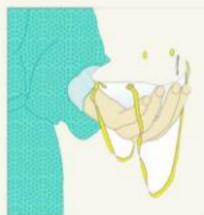


- 3** Put on particulate respirator or medical mask; perform user seal check if using a respirator.

- 4** Put on eye protection, e.g. face shield/goggles (consider anti-fog drops or fog-resistant goggles). Caps are optional: if worn, put on after eye protection.



- 5** Put on gloves (over cuff).



- 1** Cup the respirator in your hand with the nosepiece at your fingertips allowing the headbands to hang freely below your hand.



- 2** Position the respirator under your chin with the nosepiece up.

- 3** Pull the top strap over your head resting it high at the back of your head. Pull the bottom strap over your head and position it around the neck below the ears.



- 4** Place fingertips of both hands at the top of the metal nosepiece. Mould the nosepiece (USING TWO FINGERS OF EACH HAND) to the shape of your nose. Pinching the nosepiece using one hand may result in less effective respirator performance.



- 5** Cover the front of the respirator with both hands, being careful not to disturb the position of the respirator.

5A Positive seal check

- Exhale sharply. A positive pressure inside the respirator = no leakage. If leakage, adjust position and/or tension straps. Retest the seal.
- Repeat the steps until respirator is sealed properly.

5B Negative seal check

- Inhale deeply. If no leakage, negative pressure will make respirator cling to your face.
- Leakage will result in loss of negative pressure in the respirator due to air entering through gaps in the seal.

Annex 5 - Removing Personal Protection Equipment (PPE)



- 1**
- Avoid contamination of self, others and the environment.
 - Remove the most heavily contaminated items first.

Remove gloves and gown:

- peel off gown and gloves and roll inside, out;
- dispose of gloves and gown safely.



- 2** Perform hand hygiene.



- 3**
- Remove cap (if worn).
 - Remove goggles from behind.
 - Put goggles in a separate container for reprocessing.



- 4** Remove respirator from behind.

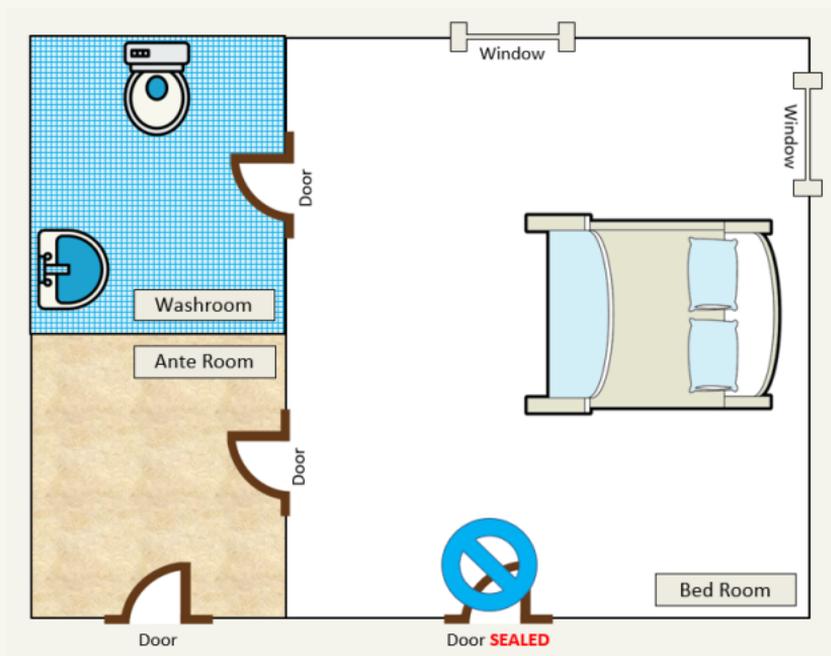


- 5** Perform hand hygiene.

Annex 6 - Checklist to be used for Patient Management and Vitals' Monitoring

		Date													
		Time													
Take observation & calculate NEWS	A+B Respirations breaths/min 	≥25												3	
		21-24													2
		18-20													
		15-17													
		12-14													
		9-11											1		
		≤8											3		
Authorising clinician Signature & Date	A+B SpO ₂ Scale 1 Oxygen saturation (%) 	≥96												1	
		94-95												2	
		92-93													3
		≤91													
		≥97 on O ₂												3	
		95-96 on O ₂												2	
		93-94 on O ₂												1	
		≤93 on air													
		e.g. in hypercapnic respiratory failure													
		86-87												1	
		84-85												2	
		≤83%												3	
		A = Air O ₂ L/min												2	
														3	
ACVPU KEY A Alert awake & responding, eyes open 	C Blood pressure mmHg Score uses systolic BP only	≥220													
		201-219													
		181-200													
		161-180													
		141-160													
		121-140													
		111-120													
		101-110											1		
		91-100											2		
		81-90													
		71-80													
		61-70											3		
		51-60													
		≤50													
C Confusion New onset of confusion (Do not score if chronic)	C Pulse beats/min 	≥131											3		
		121-130												2	
		111-120													
		101-110													1
		91-100													
		81-90													
		71-80													
		61-70													
		51-60													
		41-50											1		
		31-40													
		≤30											3		
V Verbal moves eyes / limbs or makes sounds to voice	D Consciousness score for NEWS onset of confusion (no score if chronic)	Alert													
		Confusion													
		V													
		P													
		U												3	
P Pain responds only to painful stimuli	E Temperature °C 	≥39.1											2		
		38.1-39.0°												1	
		37.1-38.0°													
		36.1-37.0°													
		35.1-36.0°												1	
		≤35.0°											3		
U Unresponsive unconscious	NEWS TOTAL														
	Next observation due (M/PM/AM)														
	Escalation of care (Y/N)														
	Initials														

Annex 7 - Ideal Isolation Room Layout



Annex 8 - List of websites to follow and stay updated

- ★ [WHO on general information about COVID-19](#)
- ★ [WHO – Latest updates on COVID-19](#)
- ★ [WHO – Advice for Public](#)
- ★ [Government of Pakistan Website on COVID-19](#)
- ★ [WHO Guidelines on Home care for patients with COVID-19](#)

Annex 9 - Home Care for people with COVID-19 cases at home

World Health Organization Home care for people with suspected or confirmed COVID-19
Take care of yourself and your family

For caregivers	
<p>Ensure the ill person rests, drinks plenty of fluids and eats nutritious food.</p> 	<p>Wear a medical mask when in the same room with an ill person. Do not touch the mask or face during use and discard it afterward.</p> 
<p>Frequently clean hands with soap and water or alcohol-based rub, especially:</p> <ul style="list-style-type: none"> • after any type of contact with the ill person or their surroundings • before, during and after preparing food • before eating • after using the toilet 	<p>Use dedicated dishes, cups, eating utensils, towels and bedlinens for the ill person. Wash dishes, cups, eating utensils, towels, or bedlinens used by the ill person with soap and water.</p> 
<p>Identify frequently touched surfaces by the ill person and clean and disinfect them daily.</p> 	<p>Call your health care facility immediately if the ill person worsens or experiences difficulty breathing.</p> 

www.who.int/covid-19

LIST OF DOCUMENTS AND GUIDELINES REVIEWED

- ★ WHO (2020) *Critical preparedness, readiness and response actions for COVID-19*. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/critical-preparedness-readiness-and-response-actions-for-covid-19>. (Accessed: 27 March 2020).
- ★ WHO (2020) Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19).
- ★ WHO (2020) Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts.
- ★ WHO (2020) Isolation Rooms-International Health Facility Guidelines.
- ★ WHO (2020) Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care.
- ★ Center for Disease Control and Prevention (CDC) (2020). *Recommended precautions for household members, intimate partners, and caregivers in a nonhealthcare setting*. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html> (Accessed: 27 March 2020).
- ★ Center for Disease Control and Prevention (CDC) (2020) *Coronavirus (COVID-19)*. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/index.html> (Accessed: 24 March 2020).
- ★ European Centre for Disease Prevention and Control. (2020). Leaflet: information on self-isolation and quarantine after exposure to COVID-19. Available at: <https://www.ecdc.europa.eu/en/publications-data/leaflet-information-self-isolation-and-quarantine-after-exposure-covid-19> (Accessed: 24 March 2020)
- ★ Public Health England. (2020). *Guidance: Stay at home: guidance for households with possible coronavirus (COVID-19) infection*. <https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection> (Accessed: 24 March 2020)
- ★ Public Health England (2020) *Guidance on social distancing for everyone in the UK*. Available at: <https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-and-for-vulnerable-people/guidance-on-social-distancing-for-everyone-in-the-uk-and-protecting-older-people-and-vulnerable-adults>. (Accessed: 27 March 2020).
- ★ John Hopkins Medicine. (2020). *Coronavirus, Social Distancing and Self-Quarantine*. Available at: <https://www.hopkinsmedicine.org/health/conditions-and->

[diseases/coronavirus/coronavirus-social-distancing-and-self-quarantine](#) (Accessed: 28 March 2020).

- ★ Harvard T.H. Chan School of Public Health (2020) *Food safety, nutrition, and wellness during COVID-19*. Available at: <https://www.hsph.harvard.edu/nutritionsource/2020/03/25/food-safety-nutrition-and-wellness-during-covid-19/> (Accessed: 24 March 2020).
- ★ Cleveland Clinic. (2020). *COVID-19: Understanding Quarantine, Isolation and Social Distancing in a Pandemic*. Available at: <https://health.clevelandclinic.org/covid-19-understanding-quarantine-isolation-and-social-distancing-in-a-pandemic/> (Accessed: 28 March 2020).
- ★ Government of Ireland (2020) Coronavirus (COVID-19) Public Information Booklet.
- ★ Government of Pakistan (2020) National Action Plan for Coronavirus disease (COVID-19) Pakistan.