



Case Management Protocol and Tips to Manage Mental Health and Wellbeing during Corona Virus Disease-19 (COVID-19) Case Study

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Case Report

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Abstract

A novel coronavirus (2019-nCoV) causing an outbreak of pneumonia in Wuhan, Hubei province of China was isolated in End of December, 2019. And nowadays it addressed almost more than 209 countries around the globe and spread very alarming rate. The objective of this paper was to increase the awareness of the community through informing the major preventive protocol technique and the way to applied during both pre-treatment and post treatment time in the struggle of this pandemic virus. And also, we tried to forward the basic techniques what we did during the lockdown period in order to avoid the overwhelmed feeling.

Keywords: COVID-19; Protocol; Tips; Treatment; Coronavirus

Abbreviations: nCoV: Novel Coronavirus; WHO: World Health Organization; IPC: Infection Prevention and Control.

Introduction

Severe acute respiratory infection remains one of the leading causes of mortality around the world. A recent cluster of pneumonia cases in Wuhan, China, was caused by a novel beta corona virus, the 2019 novel coronavirus (2019-nCoV). It has been recognized as global public health emergency by WHO (World Health Organization) after cases had started to be seen outside china. After the report of the first case in Wuhan City, Hubei Province, China on December 31, 2019, new cases are being reported from different area around the world. Resulting more than 1.6 million confirmed cases and 638 deaths until date 10th April 2020. And America, Spain, Italy, France, Germany and china ranked from 1- 6 respectively in case of total confirmed case until this data reported [1]. The Chinese scientists rapidly isolated a SARS-CoV-2 from a patient conducted genome sequencing of the SARS-CoV-2 [2] and also the reproduction feature of SARS-CoV-2 also

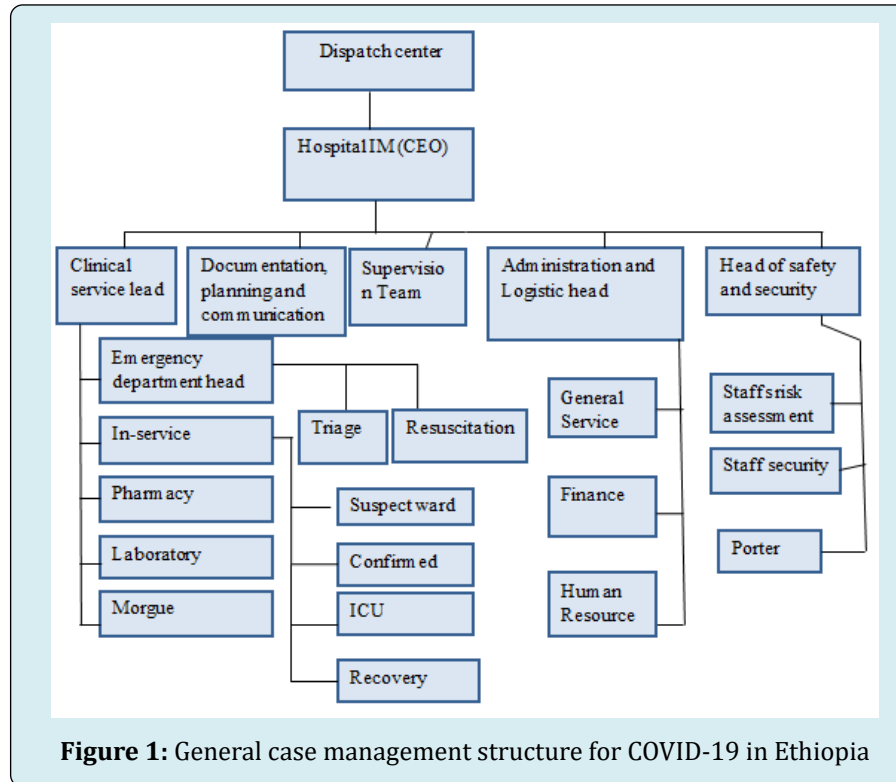
estimated around 1.4-6.5 [3-5]. To minimize the exposure to and transmission of 2019-ncov, infection prevention and control measures should be implemented systematically based on the standard, contact, and droplet precautions. Effective initial screening of patients by visual triaging has a crucial role in isolating patients that can potentially transmit infections to other patients or healthcare professionals [6]. This protocol is intended mostly for clinicians taking care of hospitalized adult and pediatric patients with COVID-19 infection. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen clinical management of these patients and provide up-to-date guidance.

General COVID-19 Case Management Structure

The general case management of COVID-19 starts from activation of the dispatch center, and these centers should have three digit or four digit communication devices for the public access and cell phones or walky-talky for

communication with ambulance crew. Health education on how, when to use this communication system should give regularly and continuously. The dispatcher completes the dispatch documentation using pre prepared format and if the information given fulfills the case definition, he/she contacts the BLS or ALS ambulance crew according the severity of case, and gives order where to take the case,

and subsequently informs the receiving health facility on the incoming suspect or case. The dispatcher should have separate dedicated ambulances for the cases, and equip the ambulances with Infection Prevention and Control (IPC), supportive and resuscitation equipment and supplies according the ambulance level and Infection Prevention and Control (IPC) protocol [7] (Figure 1).



General COVID 19 Preparedness and Response Protocol

As it is known COVID 19 is a highly contagious disease with high attack and case fatality rate [8,9]. During such pandemic situation most burdens goes to health care system and facilities, hence health care facilities should prepare in the following regards.

Administrative Activities

In order to increase the success of prevention for COVID-19 infection at the administrative level the following major activities should be prepared and implemented:

- a) Facilities should dedicate an area for COVID 19 screening, case management, isolation and infection prevention practice (i.e. hand washing).
- b) Non COVID-19 managing centers should make ready patient isolation center and dedicate trained staffs for deployment to COVID-19 treatment center.
- c) Collaborate with respective leadership for decisions and potential resource allocation for COVID-19 response.
- d) Determine methods for patient/family information provision including alternate languages/interpretive services.
- e) Preparedness should include strategies to maintain basic routine services for patients during outbreak period (e.g., pregnant, surgery, inpatient service) unrelated to COVID-19.
- f) Develop service limitation plans in case of staff shortages or increased demand (e.g., respiratory care, nutritional support, pharmacy, laboratory, radiology, elective surgeries/procedures).
- g) Develop a strategy to detect symptomatic health care workers so that workers will not be harmed and affect the system.
- h) Specialty hospitals who have no alternative service may continue their service until a direction is give. But strict IPC measures stated below should be followed.
- i) Prepare stoke with check list for disaster response

supplies.

- j) Facilities should prepare COVID 19 response team involving different departments.
- k) Ethical and morgue management committee and quality team should be established and
- l) Limited COVID 19 center will dedicate pediatric and tertiary care facilities like dialysis, surgery and gyn/obs.

Infection Prevention and Control Activities

To reduce the risk and rapid spread of COVID-19 pre-prevention and post prevention mechanism would be given better emphasis based on the following major activities:

- a) Facilities should assign one IPC person dedicated for this COVID 19 response.
- b) Provide staff education about COVID- 19 infection control and update policies as required.
- c) Facilities should plan the amount of IPC needed with contingency plan.
- d) Facilities should avail adequate amount of PPE including medical masks, N95 masks, goggles, adequate amount of water, soap, and alcohol based sanitizer and assess what is in their store.
- e) Develop guideline on appropriate use of PPE.
- f) Monitoring guide for staff illness and work leave should be available
- g) Develop a plan to reduce patient and attendants overcrowding more than two meter distancing should be practiced at every corner of the facility and monitoring boy should be assigned.
- h) Plan to postpone none emergency services and high risk elective procedures depending on case level and hospital type.
- i) Samples taken from suspected cases for diagnosis should be handled by trained staff and processed in suitably equipped laboratories and
- j) Support staff coming closer to patients like janitors, food service, and staff working in a morgue area should be trained on IPCs and their practice should be monitored.

Emergency Room Preparedness

Pre hospital emergency care involves activation of the EOC or Dispatch center, and these centers should have included the following basic techniques:

- a) Prepare pre triage area per protocol.
- b) Prepare isolation area for suspected cases near to pre triage area to be used until patient get transferred
- c) Determine how suspect cases will be isolated from other waiting patients and during ED care.
- d) Emphasize hand and respiratory hygiene and other infection prevention techniques through education, policies, signage, and easy availability of supplies
- e) Develop referral plans for non-COVID-19 patients that

do not need emergency care

- f) Develop care plans that reduce the number of staff caring for suspect/confirmed cases until transferred.
- g) Create 'fast-track' or other methods for rapid evaluation and prescribing for minor illness.
- h) Develop risk communication and transportation plan for suspected cases and
- i) Keep 6 feet=1.5-2 meters between beds in the regular ED care (incase COVID is sneak in to the ED) avoid or minimize attendants and care givers, including all clinical students except strictly needed care givers.

Outpatient Services

After the infection case observed and happened the following major techniques would be implemented for the patient and also for the other vaster safety:

- a) Develop staffing plan to allow for expanded service hours when needed.
- b) Develop a plan to facilitate easy ways for medication refills or obstetrician visits.
- c) Develop a process for screening and triage of phone for care to limit OPD visits.
- d) Develop a process to limit/cancel non-essential visits which can 'flex' with the demands of the COVID-19 outbreak.
- e) Emphasize hand and respiratory hygiene and other infection prevention techniques through education, policies, signage, and easy availability of supplies and
- f) Decrease Outpatient waiting area crowding, the space can be outside at open areas sitting at 1.5-2 meters distance and strict hand hygiene of patients and attendants (Figure 2).

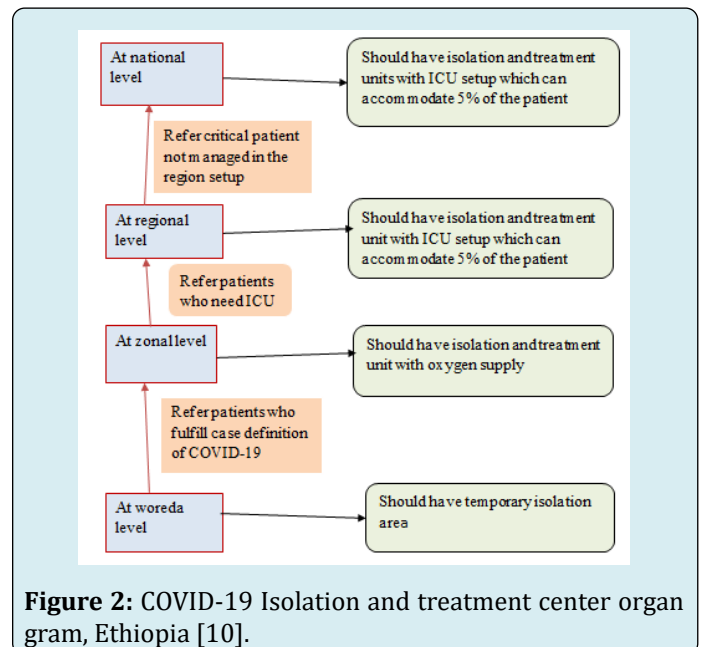


Figure 2: COVID-19 Isolation and treatment center organ gram, Ethiopia [10].

Tips to Manage Mental Health and Well Being during COVID-19 Outbreak

The lockdown of all things during the outbreak make feel overwhelmed and our mind is consumed by the speed the corona virus spreading and its impact on our health loved ones, students, economy, employment status. So, how could we maintain our mental health/ well-being and that of our loved ones and community? Here are a few tips.

Manage Your Expectation

Do not underestimate the cognitive and emotional load the pandemic brings, or the impact it will have on your productivity. Difficulty concentrating, low motivation and a state of distraction are to be expected. Adaptation will take time. Go easy on yourself. As we settle to this new rhythm of isolation, we need to be realistic in goals we set for ourselves and others we are in charge.

Proactively Manage Your Stress Threshold

Lay a solid foundation for your mental health and wellbeing by prioritizing your sleep and sleep hygiene (for example, avoid blue lights before bed, maintain a routine on your wake and sleep times). Eat well (because in times of stress we are inclined to alcohol and other indulgences, this is understandable but potentially damaging in the long run). Exercise: it will lower your stress level, better help you to regulate your emotion and improves your sleep.

Know Your Red Flags

Identify key thoughts or physical sensations that tend to contribute on your cycle of distress and feelings of being overwhelmed. Our thoughts ("why I can't concentrate?"), physical sensation (tension, upset stomach, jitters) and actions (like compulsively checking the latest COVID-19 statistics) each feed into and amplify these negative emotional spirals. Addressing one aspect of this loop by can de-escalate the cycle and help you regain control. For example, we can use breathing exercise to reduce physical symptoms.

Routine is Your Friend

It helps you to reduce anxiety, and will help you to adapt more quickly to this current reality. Create clear distinction between work and non-work time, ideally your physical workspace and your head space. Find something to do that is not work related and COVID-19 related that brings you joy. Working aggressively for short with clear breaks will help to maintain your clarity of thought.

Be Compassionate with Yourself and with Others

There is much we cannot control right now, but how we talk to ourselves during these challenging moments can either provide a powerful buffer to these difficult circumstances or amplify our distress. Moments of feeling overwhelmed often come with big thoughts, like "I cannot do this" or "this is too hard". This pandemic causes a lot of stress for many of us, we cannot be our best all the time. But we can ask for help or reach out when help is asked of us.

Maintain Connections (Life can be Hard if we Walking Alone)

All of us need some sense of connection to others for our mental health as well as our physical health. Many working groups have created virtual forums where you can contribute or just sit and enjoy the chatter. Staff teams have instigated virtual coffee groups, online book clubs and co-working spaces where you can work in the (virtual) presence of others. We are in a social isolation, but we need not to feel alone. Reach out to those who might be particularly isolated.

Manage Uncertainty by Staying in the Present

Take each day as it comes and focus on the things you can control.

Conclusion

The outbreak of COVID-19 swept across China rapidly and has spread almost more than 209 countries/territories/ areas outside of China as of 10 April 2020. Scientists tried to use their maximum effort and have made progress in the general characterization of the novel coronavirus and are working extensively on the therapies and vaccines against the virus [11]. And in this short communication report we tried to list out the most common protocol techniques should be implemented in the general treatment of the COVID-19 and the way how to reduce our stress and feel relax until this harsh time will be passed. In general, we recommend all the peoples and community of the world keep all the pre-treatment techniques informed by WHO, follow the true source information and stay safe and let's fight in one until it will totally be eradicated from the globe.

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