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# [AP2-E1-3-02] COVID-19 System in Portable Health Clinic for Patient Follow-up Ensuring Clinical Safety of Both Patients and Health Workers

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Keywords: COVID-19 Triage, Telemedicine, Quarantine Support, Clinical Safety, Home Delivery Healthcare
Service

Portable Health Clinic (PHC) for COVID-19 system has a triage process for early detection of suspected COVID-19 patients who may need a confirmation test. This prevents the crowd from the confirmation PCR test centers and hospitals in developing countries like Bangladesh where there is a huge shortage of healthcare facilities. This will reduce the wastage of the valued medical resources in the pandemic. Like the basic PHC system, it also has the features for patients' treatment and follow-up for the home quarantined COVID-19 positive patients from distance. This COVID-19 system service box contains various self-checking medical sensors like the thermometer, pulse oximeter, blood pressure machine and glucometer for patient' s health monitoring including a tablet PC installed with COVID-19 system application for communication between patient and doctor for tele-consultancy maintaining a social distance. Thus, this system can contribute to the community healthcare system by ensuring quality service to the 80% or more tested COVID-19 positive patients who are usually in moderate or below state, and do not need to be hospitalized. PHC for COVID-19 system can provide services to these patients maintaining social distance for preventing infection and also ensures clinical safety to the valued health workers.

## COVID-19 System in Portable Health Clinic for Patient Follow-up Ensuring Clinical Safety of Both Patients and Health Workers

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#### Abstract

Portable Health Clinic (PHC) for COVID-19 system has a triage process for early detection of suspected COVID-19 patients who may need a confirmation test. This prevents the crowd from the confirmation PCR test centers and hospitals in developing countries like Bangladesh where there is a huge shortage of healthcare facilities. This will reduce the wastage of the valued medical resources in the pandemic. Like the basic PHC system, it also has the features for patients' treatment and follow-up for the home quarantined COVID-19 positive patients from distance. This COVID-19 system service box contains various self-checking medical sensors like the thermometer, pulse oximeter, blood pressure machine and glucometer for patient's health monitoring including a tablet PC installed with COVID-19 system can contribute to the communication between patient and doctor for tele-consultancy maintaining a social distance. Thus, this system can contribute to the community healthcare system by ensuring quality service to the 80% or more tested COVID-19 positive patients who are usually in moderate or below state, and do not need to be hospitalized. PHC for COVID-19 system can provide services to these patients maintaining social distance for preventing infection and also ensures clinical safety to the valued health workers.

#### Keywords:

COVID-19 Triage, Telemedicine, Quarantine Support, Clinical Safety, Home Delivery Healthcare Service

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**Note:** This paper has been reviewed and recommended by AMAPI2020 Scientific Program Committee to be submitted to the International Journal of Computer Methods and Programs in Biomedicine (CMPB) in its "APAMI2020 Special Edition" as a full-paper scheduled to be published in 2021. Therefore, APAMI2020 Conference Proceeding has published only the abstract of this papers here to avoid any issue of double publication.