



FAST TRACK: CORONAVIRUS PANDEMIC PROJECT

RE: COVID 19 CORONAVIRUS PANDEMIC

ID: Contagion Collaborative Endeavor Organization (Contagion CEO)

Overview

Contagion CEO PURPOSE:

The purpose of this Contagion Collaborative Endeavor Organization (C.E.O.) is to provide a meaningful, organized and structured global guidance resource and response to existing and novel contagion manifestations. The nature and construct of this organization is a multifaceted endeavor intended to:

- Identify, assess and analyze the contagion outbreak presentation,

- Coordinate, model and pilot healthcare preparedness and treatment guidelines,
- Protect the public by disseminating awareness and preventative measures,
- Promulgate, predict and respond to treatment ramifications,
- Contain and mitigate the contagion outbreak,
- Collaboratively provide the means and methods to significantly minimize the morbidity and mortality of the outbreak through innovative adaptation and modification of existing healthcare modalities.

It is the belief of this organization that a comprehensive public healthcare crisis of this nature requires the structured comprehensive collaboration between the science industry sectors, global, national and local operational and regulatory governances, management and logistical operations as well as the input of the public collective intelligence to comprehensively and adequately address such a crisis.

It is also the belief of this organization that effectively millions of lives are in jeopardy with the COVID 19 Pandemic and immediate interventional action is imperative to reduce the loss of human life.

Additionally, it is the belief of Vertu Medical Technologies, consisting of a global network of nearly 1600 front line Healthcare Providers and Professional Healthcare Administrator Managers actively addressing the pandemic, that the Vertu platform provides the premier platform capable of providing leading insight and innovative assistance to confront the outbreak

GOALS

A). Reduce or eliminate the necessity for PPE (Personal Protective Equipment) which has introduced a significant mandated inconvenience to don and doff for each individual patient presentation, has become a

major additional healthcare expense and has introduced an impediment in performing a thorough physical examination.

B). Provide a novel alternative and efficient means for the temporary isolation of a patient having a contagious presentation.

C). Provide a means to prevent cross contamination transmission of a contagion from a healthcare provider to a non-infected person.

D). Provide an improved means for decontaminating and or sterilizing specified areas or zones within a healthcare facility.

E). Provide an improved means for discarding waste products and excrements of a contagious patient.

F). Provide a means for obtaining the oxygen saturation of a patient in extremis wherein conventional sensor and detection devices fail.

G). Provide a more comfortable internal environment of PPE gear for those situations whereby a healthcare provider must wear such gear for a prolonged period.

H). Provide a safe means for healthcare providers to provide conventional interventional treatment modalities that are currently discouraged due to the potential transmission spread of contagions.

I). Provide a novel and improved means for signal detection of physiological parameters from a patient and transmitting said signals to a remote location.

J). Provide a safe means for healthcare providers and personnel, patients, and family members to decontaminate personal items upon leaving healthcare facilities.

K). Provide an improved means for caring for non-hospitalized Covid 19 patients.

L). Provide a means to significantly reduce the transmission of a wide variety of contagions in healthcare facilities.

M). Provide a novel means for significantly increasing treatment areas within a healthcare facility without the need for temporary hospitals.

SOLUTIONS

BioZone Isolation Care Unit (B.I.C.U.)

A patent pending innovation; the BioZone, is provided delivering what may well lead to a paradigm shift in the approach to treating infectious patients in the immediate future. The system of components of the BioZone reverses the conventional procedure for preventing the spread of contagions. The proprietary system not only provides temporary protection for patients in a healthcare setting from contagious healthcare workers but at the same time provides reverse isolation for the healthcare workers from the contagious patient. Our provided system provides a transportable enclosure apparatus wherein the patient may be placed within the confined internal enclosure before even entering the ED facility. Transporting the patient to an anteroom, rapid detection of a contagion such as the Covid 19 virus is capable. From this area a patient may be temporarily situated within the confines of the BioZone enclosure apparatus and then potentially placed in an ED waiting room until a time when the patient is able to be evaluated inside the ED through specific triage guidelines. Once the patient is ready to be seen in the ED, the patient can then be transported into a treatment room for medical evaluation all the while remaining enclosed in our care apparatus. The BioZone has been designed with flexibility wherein the apparatus can be secured to all conventional healthcare stretchers. If the patient is to be brought to the Xray department, the patient will once again remain inside the enclosure apparatus which does not impede the positioning or technique of obtaining an Xray. Additionally, the material of the apparatus will not interfere with the quality of the radiograph. If a patient needs IV access, portals are provided wherein a proprietary PPE sleeve/glove is provided whereby the healthcare provider may insert their arms into the portal and have access to the patient. Additional portals are provided for other desired purposes such as administering

fluids, oxygen supplementation as well as all interventional procedures. If a patient has soiled themselves, healthcare providers will have the means of cleaning the patient without exposure to the odor and excrement.

An air exchange is provided wherein filtered decontaminated air is drawn through provided filters through a side component of the apparatus into the internal enclosure of the vertical section of the apparatus wherein the contaminated air is subjected to a proprietary means for decontamination and sterilization. Subsequently, the sterilized air is discharged through an air discharge vent back into the confines of the enclosure apparatus. The discharged air has been decontaminated wherein contagions are trapped and not spread back into the treatment room. The preferred embodiment air circulation system provides for a negative pressure zone wherein humidification, warming, cooling, ionization, electrostatic precipitation removal of particles and even treating nebulization therapies are permissible. An audiovisual interface is provided for the leisure of the patient during prolonged enclosures and if the patient requires admission to the hospital facility, the enclosure apparatus is transformable into a comfortable hospital bed. In this way a patient can present and even be discharged from the facility by never being exposed to contagions existing within the confines of the facility nor have exposed healthcare and other personnel of the treating facility to any contagions that the patient presented with.

The system petitioned herein essentially eliminates the need for PPE for healthcare personnel treating patients and provides previous dead space recruitment utilization in full capacity situations. Such flexibility significantly expands the treatment critical mass space availability of the facility. Additionally, a Covid ward could be created in a safe zone space of the hospital sparing contamination of crucial treatment areas that cannot be jeopardized and shut down and quarantined.

The vertical structural component of the apparatus contains several attachment points for equipment conventionally standard to healthcare treatment of patients. Such an example would be an attachable ventilator support, equipment holder, IV bag holder, IV flow regulators,

physiological, and or parameter detectors such as pulse oximetry, for example.

The preferred embodiment of the apparatus is a see-through clear material that in itself is antimicrobial. An additional component of the apparatus system includes a device mounted at the top of the enclosure that delivers the means to rapidly decontaminate the entirety of the inner confines of the enclosure apparatus. The preferable embodiment provides a 222nm excimer lamp treatment device delivering specific light bands proven to destroy the viability of pathogens such as bacterial and viral contagions. In one embodiment the photon disinfecting device may be modified to transmit photon bands at a variable frequency that can actually be adjusted for specific pathogens thus relating to another patent submission of the innovation. Using a harmonic resonating mechanism, the destruction capability of the device will be significantly enhanced and proprietary and the sterilization has the potential to be pathogen specific.

The petitioned BioZone will potentially provide a necessary paradigm shift to the healthcare industry that is of immediate need. A portable home unit has been provided of similar construct as well as units modified for dialysis centers and other ancillary treatment facilities.

There is now a solution available to adequately combat the Covid 19 pandemic and future pandemics while more adequately addressing the needs for protective isolation to existing pathogens such as Influenza, Legionella, Tuberculosis, Ebola, Malaria, to name only a few of the multitude of case presentations wherein the BioZone would better serve to halt the spread of contagions.

Petitioned alternative embodiments of the innovation are provided for a more comprehensive isolation means to enclose a very contagious patient in such a way that persons outside the confinement of the enclosure cannot be exposed to bacterial or viral shedding's of the patient enclosed within the treatment and isolation apparatus.

It is the intent of the petitioned invention to provide a system of components to provide isolation from contagions whether direct or

indirect (or reverse). Our system integrally coordinates in such fashion to be modified in a manner of severity and or degree of isolation necessary for primary intent of the invention.

Our petitioned invention provides a means for a rapid care turnover such as patients admitted and then discharged from an emergency department. All embodiments provide a device for rapid decontamination and sterilization of the inner confines as well as a means for sterilization of the atmosphere of the inner confinement enclosure.

Additional components of the BioZone system include novel surface antiviral sheeting materials, a highly specialized reticulated stretcher mattress, a novel biohazard portable stretcher commode, interior PPE garment environment control features with 3D printed cooling airflow, a means for rapid decontamination of healthcare facility surgical suites, hospital and emergency department rooms, waiting rooms and office examination rooms, a novel critical care means for determining the oxygen saturation in a critical patient wherein conventional devices fail, novel medical devices designed to transmit physiological data from a patient to a remote healthcare provider. Such data transmission provides a means to facilitate national and global healthcare data tracking of contagious patients as well as determinations of noncontagious status and termination of quarantine. Additionally, a means for healthcare workers, patient and family members to decontaminate personal articles and footwear before leaving healthcare facilities is provided.

DISCUSSION

Vertu Medical Technologies is taking a lead role in providing innovating means and methods to counter the Covid 19 Coronavirus pandemic. The solutions to the problems encountered with the Covid 19 outbreak has led to the development of proprietary interventional treatment modalities capable of creating a paradigm shift disruption to the healthcare industry.

Vertu Medical Technologies identified significant deficiencies in current available medical equipment to encounter the rapidly mutating global emergency. With this premise, our systematic approach encompasses all aspects of the patient encounter from testing the asymptomatic patient to protecting patients and healthcare providers from direct and reverse transmission to interacting with the highly suspected infected and contagious patient.

Vertu Medical Technologies has now developed a proprietary system of coordinated components that provides significant advantages over what is currently available to healthcare providers. Given only 19% of Covid 19 infections necessitate hospital admission in the United States at this time, the Vertu home care system will permit the rotational assignment of documented Covid 19 patients not admitted to a hospital setting, to be delegated to telemedicine personnel. This achievement alone will markedly reduce the exposure generated by follow up examination or repeat Emergency Department encounters.

The Covid 19 Coronavirus pandemic has provided us the ability to demonstrate an unprecedented effectiveness of our Plexus coordinated network of expert Healthcare Providers. Vertu Medical Technologies has rapidly amassed a portfolio of novel innovations and approaches to better combat the morbidity and mortality stemming from the Covid 19 Coronavirus pandemic.

The Vertu Plexus of physician and nonphysician innovators being utilized for the Covid 19 project includes all relevant specialties and subspecialties of medical providers. Based on the needs and nature of the pandemic problem identified, front line Emergency Medicine, Critical Care, Infectious Disease, Pulmonologists, Internists, Epidemiologists, and Nephrology physicians are being consulted to collaboratively address innovations to alleviate the multitude of ramifications from the viral pandemic. Additionally, nonphysician personnel such as first responder EMTs, Firemen, Clerical, Nursing, Administrative, Logistics, Pharmaceuticals and Pharmacy Benefits Managers are being incorporated for a combined collective intelligence approach to every aspect of confronting the present pandemic.

In record time, our platform has been able to delineate, in a priority basis, the necessary comprehensive approach to combat the Covid 19 pandemic. With innovation algorithms being established, Vertu Medical Technologies is currently delegating our portfolio of solutions to our affiliate product realization companies. We sincerely believe the Vertu solutions referenced herein will quickly become the medicolegal standard in combatting not only the Covid 19 outbreak, but future epidemics or pandemics that will inevitably be encountered.