

Covid Evidence Digest 3/26/2020

NYC Health + Hospitals, Office of Population Health

1/ The convalescent sera option for containing COVID-19 (Journal of Clinical Investigation)

Bottom Line:

Blood donations from people who have recovered from COVID-19, known as convalescent serum, may be an option for prevention and treatment of COVID-19 that could be rapidly available.

Details:

Since the 1890s, blood donations from people who have recovered from illness have been used in numerous infectious disease outbreaks, including the 1918 flu. These blood donations contain antibodies that may help prevent COVID-19 infection in high-risk populations like health care workers or defeat COVID-19 infection in people in early stages of disease. It is unknown how effective or safe this treatment would be.

Key Takeaways:

- As more people recover from COVID-19, convalescent serum can be rapidly available.
- The effectiveness and safety of treatment with convalescent serum for COVID-19 is not known without studying it in a controlled clinical trial; [3 trial protocols](#) have been submitted to the FDA.

2/ Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019 (JAMA Network)

Bottom Line:

Health care workers responding to COVID-19 are likely to develop symptoms of depression, anxiety, insomnia, and distress.

Details:

To assess the mental health burden on health care workers responding to COVID-19, this study surveyed 1257 health care workers across 34 hospitals in China. Of these participants, 50.4% reported symptoms of depression; 44.6% symptoms of anxiety; 34.0% symptoms of insomnia; and 71.5% symptoms of psychological and emotional distress. The following groups reported more severe degrees of unfavorable mental health symptoms: nurses, women, those working in Wuhan city, and frontline health care workers directly engaged in the treatment and care of patients with confirmed or suspected COVID-19.

Key Takeaway:

Mental health services should be available to support health care workers during this epidemic.

Covid Evidence Digest 3/26/2020

NYC Health + Hospitals, Office of Population Health

3/ Planning and provision of ECMO services for severe ARDS during the COVID-19 pandemic (Lancet)

Bottom Line:

ECMO (Extracorporeal membrane oxygenation) is a complex, resource-intensive, and limited form of life support available to treat certain critically ill patients with severe lung and heart disease; it is only offered at specialized ECMO centers. Its effectiveness in COVID-19 may be influenced by the preparedness of health systems.

Details:

ECMO is a machine that gives oxygen to a patient's blood outside the body, allowing the lungs (and sometimes, the heart) to rest. It can sometimes be used when patients' breathing is not improving on a ventilator. The need for ECMO is likely rapidly increasing, as patients develop respiratory failure and acute respiratory distress syndrome due to COVID-19 infection. Careful planning, judicious resource allocation, personnel training, infection control, and coordinated transport of patients, staff, and equipment are crucial components of an ECMO action plan. This article provides guidance for the 10 key components to create an effective ECMO action plan.

Key Takeaway:

Safely maximizing ECMO access in an infectious disease outbreak involves careful coordination of personnel, equipment, facilities, and patients.