

# Covid 19 Pandemic and related Health Issues

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COVID-19 was declared a global pandemic by the World Health Organization (WHO). COVID-19. Currently over 2 million positive cases have been reported globally with over half a million deaths. Initial stages of COVID-19 present with symptoms that mimic the common cold and individuals may be asymptomatic carriers and thus, transmitting the virus to others. COVID-19, like other coronaviruses, presents with S glycoproteins on the membrane that plays an integral role in the virus binding with the angiotensin-converting enzyme 2 (ACE2) receptor. The ACE2 receptor is an intramembrane receptor on the type II pneumocytes, where the virus is able to replicate after getting endocytosed within the cytoplasm. As the viral load increases within the alveolar cell, the alveolar epithelial cell will burst, releasing the newly replicated viral RNA. The ACE2 receptors are widely distributed in the human body other than lungs the digestive system, liver especially Cholangiocytes and vascular endothelium in the body has abundant ACE2 receptors. Elderly individuals are at a greater risk of infection due to weakened immune systems and pre-existing medical conditions resulting in a compromised immune response, also increasing the susceptibility of infection. Infected individuals presenting with mild to moderate symptoms are recommended to self-isolate as the majority will recover without any intervention.

Patients with cardiovascular, diabetes, chronic lung and chronic Liver and Biliary diseases are especially predisposed to the serious form of the disease with poorer outcome once they are in intensive care on artificial ventilation. The younger age was initially thought to have only milder form of the disease but no age is bar from serious implications of this infection.

Active treatment is mostly supportive there is only one antiviral Remdesivir which has been approved so far approved for moderately severe disease but many other medications are being tried in clinical trials.

Preventive measures by social distancing; proper use of PPE and hand hygiene are so far the best measures to spread the infection which is spreading like a wild fire.

Active research is happening globally for the development of vaccine which may be as early as late this year or early next year.