New Website Shows How Hospitals Can Decontaminate Masks Using UV Light, Other Ways

STANFORD, Calif., April 8, 2020 — N95decon.org is a new website that synthesizes scientific literature about mask decontamination to create a set of best practices for decontaminating and reusing this protective face covering. The site was created by a team of 60 scientists, engineers, students, and clinicians from universities and the private sector.

Stanford researchers helped lead the nationwide scientific team behind N95decon.org, a website that synthesizes the scientific literature regarding how to decontaminate and reuse this scarce, protective face gear to battle COVID-19. Courtesy of Unsplash/Brian McGowan.

The team members reviewed hundreds of peer-reviewed publications and held continuous online meetings to review studies of decontamination methods that have been used on previous viral and bacterial pathogens and then to assess the potential effectiveness of these methods on the novel SARS-CoV-2 virus that causes COVID-19. The goal of the team was to provide health officials with reliable scientific information about the pros and cons of three decontamination methods, should local shortages force a choice between decontamination and reuse or going unmasked.

These three methods are treatment with ultraviolet C (UVC) light; treatment with hydrogen peroxide vapors (HPV); and treatment with heat and humidity. With UVC devices, the group advised making sure masks are properly oriented to the light so the entire surface is bathed in sufficient energy.
N95decon.org will help facilitate the rapid deployment of these emergency measures by pointing decision makers to sources of trustworthy and detailed how-to information provided by other organizations. For example, the U.S. Centers for Disease Control and Prevention has released a data-driven fact sheet and a detailed overview for implementing the same three decontamination methods.

The scientists did not endorse any one method but instead sought to describe the circumstances under which each might be effective against the virus provided rigorous procedures were followed. The team members will continue to work together to update the N95decon.org website as new information becomes available.