

UNMC Designs Shield To Protect From Coronavirus During Intubation Procedure

University of Nebraska Medical Center



A new protective barrier invented at UNMC shields and protects health care workers from contagions and other contaminants during intubation procedures.

Inventors Thomas Schulte, M.D., and Michael Ash, M.D., of Nebraska Medicine, in collaboration with Scott Nepper at Design Plastics, Inc. in Omaha, developed the device in the face of PPE shortages, and as an improvement on other intubation boxes on the market. Within 48 hours of working with UNeMed, they were shipping the shields and receiving orders from around the U.S.

“The clinicians indicated that there was an immediate need to make these shields available as soon as possible. UNeMed met with the plastics manufacturer that was also a co-inventor, developed a website and started shipping shields in less than 48 hours. Within 6 hours of going

live, we had orders from both coasts as well as the middle of the country," said Michael Dixon, CEO of UNeMed.

Current shield designs' rigid construction and size limit their use in operating rooms, and storage becomes an issue. UNMC's clear, lightweight, foldable solution has ports for patient access, and is easily maneuverable and adjustable. It can be cleaned for repeated uses, including by UV light.

The Intubation Shield protects physicians from pathogens expressed by a patient during intubation, which provides an uninterrupted air supply for patients struggling to breathe, one of the more severe symptoms of COVID-19. Thirty shields are currently in use at Nebraska Medicine.

"The intubation shield provides an additional layer of safety and is so easy to use we plan on using the shield on every intubation of patients we suspect may have COVID-19," said Schulte, an anesthesiologist at Nebraska Medicine.

UNeMed, the technology transfer and commercialization office for UNMC and the University of Nebraska at Omaha, will ship intubation boxes to hospitals in some of the areas hardest hit by COVID-19.

Michael Dixon, CEO of UNeMed said, "We are humbled to be able to play a role in helping to protect providers on the front line and grateful to our inventors for creating an easy-to-use tool that could help stop the spread."

A video demonstrating how the Intubation Shield works is available [here](#).

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