

The importance of research

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The pore size of the membrane of that mask is really critical in preventing the viral infection, right. So to make sure that we have to find the method that does not affect the pore size of the mask, right, so some of the people had to review the data that are available. And there were many people who actually came up with different ways of decontaminating the mask. We had to find the best way of dealing with it right. So it requires a lot of information and knowledge that we can review and put together a best way of the decontaminate the masks. So research is benefitting all the help healthcare staff as well as the community.

Finding the best method

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Before we actually started this process, we reviewed the various methods that we could actually utilize in terms of decontaminate the masks. So we review the UV related data, we review the autoclaving related data, high temperature, all different kinds of methods have been used considered, and then determined that this hydrogen peroxide vapor is going to be the best method because the data are available. The FDA has some conducted a research about four years ago. So they published this information in 2016. And that include the information saying, mentioning about the permeability of the membrane not changing after up to 50 cycles of fumigation using the hydrogen peroxide, and that's the main reason that we decided to go for that.

How the process is tested

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So methodology of hydrogen peroxide vapor is you place all those masses, right. And inside along with those masses, we place bio indicators. So there's eight of them, placing that throughout the room that will decontaminate the mask.

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So the bioindicators contain bacillus, which is one of the very hardest germs to kill. So we know that if those are killed, then the virus are not going to survive in that condition as well. Right? So the thing, The only caveat of that method is that we have to wait until those indicator results come back, right? So we have to make sure that all those bacteria have been killed. And that's the waiting period that we're having right now. But once the first run is complete, and we know that the exact condition that we're using is killing all those germs, then we don't have to wait five six days until the bioindicator results come back.

Helping as many people as possible

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So this method has been set up and a lot of people put the effort together to help our medical personnel as well as the community. So I like to have the community people or as many people as possible to use, utilize the system so that they don't get infected or they don't infect other people.