0:06

The Corona viruses have been around for a long time I think that the information that's available suggests they've been around for at least 8000 years. So these are not new.

0:17
This Corona virus however is different than the ones we've seen before. It's most closely related to the SARS virus that we saw in around 2003.

0:29
I suspect that over time the mortality rate, which right now is around 2%, is gonna probably drop even further than that. The SARS epidemic by comparison the mortality rate was about 10%.

0:41
When we see an epidemic in the first place or a new infectious disease. What we're seeing is the tip of the iceberg, if you will, okay so we see the people that are having they're more at risk of having bad outcomes.

0:54
They'll have something wrong with their immune system they'll have cancer they'll be old. They'll have lung disease, heart disease, kidney disease, etc. Those people are more risk of having mortality with anything that they get.

1:09
When we get general available testing what usually happens is we find there's a whole bunch of people that have been exposed to this either never, never got symptoms, or they got very mild symptoms they recovered and eventually. And so the denominator which is the number underneath the number of actual cases that you see gets bigger, whereas the number of people who have bad outcomes by comparison gets smaller so the mortality rate, gets smaller as well.

1:35
And I suspect that even though without a lot of detail for the cases that are in China, although when you look at the data that's been published thus far, a lot of those cases where there were bad outcomes were people with bad disease, hypertension, heart disease renal disease, kidney. I mean, lung disease etc so I don't know enough details about the patient in the Philippines to say whether that person had significant risks, or whether that person didn't get to the doctor fast enough, a lot of these people aren't dying necessarily from the viral infection. They're dying from secondary bacterial infections that they get because they're compromised by their initial viral infection.

2:13
The problem is the corona viruses in general have not been a big deal before and it takes a while to develop a vaccine from the time you first decide you're going to do that. I think the estimated time to come up with something is estimated anywhere between 12 and 18 months so. And that's really moving things along, and so clearly it's not going to help us during this epidemic.

2:36
So I think it's going to be a while before we get something that's effective.

2:42
The corona virus has been resistant to most of the drugs have been tested against it, that we have available, including the standard antivirals are used for other diseases like herpes viruses, etc. The problem with Corona virus is that everything they've tried has not worked, the standard things.

3:04
And in some of these diseases, you get well ultimately on your own with nothing. And so then you don't know in retrospect whether the drugs you use the antiviral agents you use actually had any impact at all. And that's why you need to do controlled studies looking at seeing who you know what impact that has.