LIFE INSURANCE IN COVID ENVIRONMENT

Last 1 ½ years, the only common parameter, undoubtedly, across the globe and across all the industries has been "COVID 19 : THE NOVEL CORONAVIRUS". Coronaviruses didn't just appear suddenly, but have been existing for a long time. It's probably been around for some time in animals. Sometimes, a virus in animals crosses over into people. The Novel Coronavirus which causes COVID-19 has proved to heavily infect humans. Like any other normal virus, it causes an infection in your nose, sinuses, or upper throat. When scientists found out that it was making people sick, they named it as a novel coronavirus. Experts call this strain SARS-CoV-2 and since it started in end of 2019, WHO named it distinctly as Corona Virus Disease 2019 – in short COVID 19. Many of these are known to cause a variety of ailments, from a mild cough to severe respiratory ailments though most coronaviruses are not dangerous.

About the author

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While the world over, Doctors and Scientists are putting in continuous efforts to study more about this COVID-19 virus and its impact on the morbidity and mortality, we all by now fairly believe that it starts with basic flu symptoms, but eventually ends up affecting our lungs, liver, kidneys, brain etc. However, with the advent of Covid 19, the entire world has seen series of critical cases, high morbidities and unprecedented series of deaths across the globe.

Our Life Insurance Industry also has seen a huge impact not only the overall business, but even on the mortality experience. According to data compiled by the Life Insurance Council, the industry has already paid over Rs 2,000 crores for over 25,000 Covid Death Claims. Accordingly, the insurers and the reinsurers have tied the strings together and formulated revised underwriting guidelines for new policy issuance specifically for high risk protection plans.

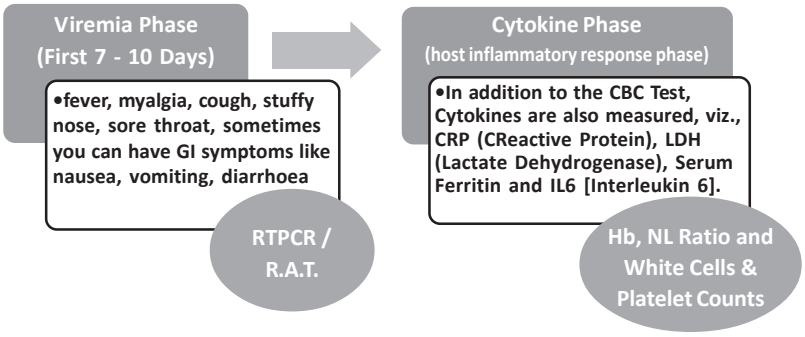
While, Clinical Medicine is all about Diagnosis, Insurance Medicine is all about Prognosis. Hence, to make this article

Dr. Rahul Pandit

more meaningful and practical, I have compiled various views of **Dr. Rahul Pandit, a Covid Expert** and a highly experienced critical care specialist. **Dr. Pandit is Director - Critical Care, Fortis Hospitals, Mumbai.** That apart, he is also **Maharashtra's COVID19 Taskforce Member** & a **member of the National COVID19 Taskforce, duly appointed by the Hon. Supreme Court.**

By now, all of us know (or atleast believe to know fully well as Google Experts) about diagnostic tests like Rapid Antigen Tests [R.A.T.], RTPCR, HRCT, CRP etc. All these tests have their own limitations. So let's understand more about these tests from Dr. Pandit, alongwith the importance of Cytokines – a group of proteins, peptides and glycoproteins which are secreted by specific cells of immune system and are a sort of signalling mechanism of our body that control the immunity and inflammation.

Dr. Pandit starts off with the fact that COVID19 is a viral illness, having different phases of infections.



One of the things in the Complete Blood Count, which is often ignored, but is very important for those with COVID19, is the RDW, which is Red Cell Distribution. If the Red Cell Distribution Width is greater than 15% it is associated with the possibility of having the infection progress, and have at least moderate or maybe even severe COVID19.

Normally for Protection and High Risk plans, Insurers conduct medical examinations. While obviously, insurers may not want to go on a witch hunt for COVID 19 cases and test each insured life as it would not make sense, but an important question that may crop up once in a while is whether the insurer can afford to miss out cases of severe Covid 19 patients and write the risks on their books – specifically for high comorbidity cases. An important question that immediately hits the mind is whether the current blood tests, ECGs and TMTs good enough to predict COVID 19. Insurers don't conduct CT Scans / HRCTs or MRIs in normal course. Infact even 2D Echo is not a routine test. So are the current medical grids sufficient or are there some better Predictors of COVID 19?

Dr. Pandit says the most important predictor for COVID19 is the 'Clinical Hypoxia' and 'Arterial Blood Gas'. If the patient has severe hypoxia on a saturation probe, and confirmed by an arterial blood gas test, that seems to be the best predictor for COVID.

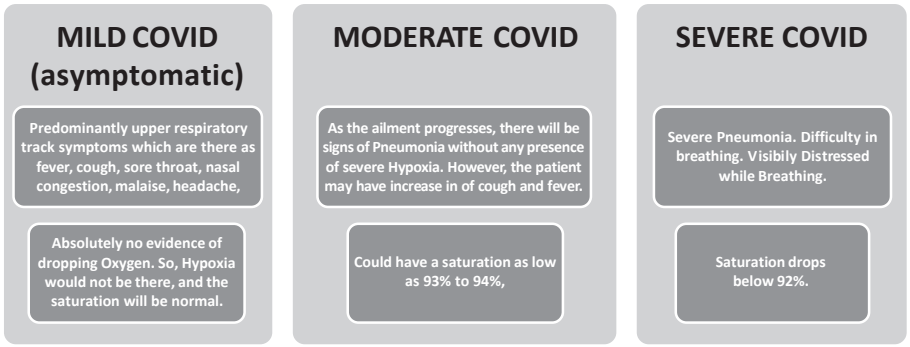
Second test obviously is a HRCT. A Ct scan determines not only the score, but what are the different patches which are being seen, and how it is described. It is often concluded that the CT and the clinical picture may not match at a particular point, but as the patient worsens, the CT does reflect the clinical condition quite well & vice a versa. However, as the improvement happens, CT scan takes several months to clear, while the patient may have actually improved quite significantly by the time and may in fact be completely normally functioning as well. So, the CT scan it has its own limitations, it must be interpreted in the time of illness not at any other time.

He adds, the other important test which can actually help make the diagnosis of COVID19 is if the patient has any symptoms, for neurological symptoms an MRI will be required, if there are heart related symptoms (such as chest pain or rise in Troponin levels) in that case ECG or a 2D ECHO would be probably required to actually come to a conclusion. These are the tests which are useful as a predictor for COVID19, or any serious aliment as a result of COVID19.

So it will be interesting to see if a few tests (like SPO2 saturation etc.) will get added in the MER alongwith other physical examinations by the insurers. Will HRCT, MRI and ABG or a 2D Echo get added to the medical grids over period based on claims experience or depending on COVID impact or co-morbidities seen in future over time.

We all hear about Mild, Moderate and Severe Covid. What are these in real sense? Are these standard terminologies?

Dr. Pandit says while the definition of COVID19 is standard worldwide, the Ministry of Health and Family Welfare (MoHFW), Government of India also categorised COVID into three categories.



Dr. Pandit here forewarns that comorbidities play an important role and some patient who has a heart disease or lung disease in a background, even before they got COVID19, they may be in a different category all together, because even moderate symptoms in them will reflect like those in severe COVID19 patients.

Insurance is based on prognosis and once a policy is issued – with or without medicals, the insurer doesn't generally get a chance to medically examine the life insured again. So it is pertinent for the insurer to do the right tests at the time of issuance, if medical examinations are necessary. Specifically if the Life to be Insured has declared that he was COVID Positive in recent times.

Dr. Pandit says "Any person who has was recently COVID Positive, then he should undergo a thorough check up which should include their Complete Blood Count, Serum Creatinine & BUN, Liver Function Test , ECG, 2D ECHO and Pulmonary Function Test (PFT). If the PFT is normal, quite often you can assume that functionally the patient is normal, because as I said before the CT Scan may take several weeks or months to normalise, however that doesn't mean that the patient has not got better, the patient is obviously clinically much ahead of time".

Lung problems, from pneumonia to COPD, range from mild to severe. Lung disease ranges from bronchitis and pneumonia to pulmonary hypertension. Lung function tests and X-rays are used to diagnosis the problem. Many symptoms can be eased with proper treatment. PFT is surely a very useful test to determine any Lung Ailment. Now with COVID, it has become a critical test. Given the limitations of HRCT, are there any challenges with PFTs as well? Some studies show that up to 40% of people with COVID-19 are "asymptomatic." But the virus can still affect your body. X-rays and CT scans of some people without symptoms show lung damage including "ground-glass opacities," a typical lung lesion in people with COVID-19. Given these facts what would be the role of PFTs or CRP or Chest XRays as critical testing parameters?

Dr. Pandit is quick to clarify here that PFT can actually help understand and diagnose Restrictive or Obstructive Lung Disease quite well, but it may not be able to differentiate whether the disease was caused because of COVID or not. It will have to be coupled with HRCT of the chest; if the HRCT of the chest shows Fibrosis and along with that the patient has a Restrictive Lung Disease, then on a history of COVID19 you could assume that it is because of COVID. However, there are several patients who have beginning of the fibrotic process in the lungs, even before COVID and they have not really become a patient of Pulmonary Fibrosis who may not have realized the fore consequences of that.

So, I think it is important that in insolation Pulmonary Function Test should not be interpreted, it should be coupled with some clinical examination as well as a CT scan of chest. In settings of acute illness, chest X-ray and CRP are very important markers to understand the severity of the disease. However, as I said before, even an X-ray just like a CT scan takes several weeks before it starts looking normal, so x-ray may not deceptively be completely normal in a patient who has otherwise recovered from COVID19. However, CRP has got a very good predictive value; if the CRP is normal and the patient's symptoms have disappeared, then you can safely say that the patient's acute phase of illness has resolved.

Till COVID mortality hit India, majority of the death certificates just mentioned cause of death as "Heart Attack or Cardio Respiratory Arrest". Of course, now Covid, Covid Pneumonia etc. are also seen as a major causes of deaths. Given the fact that the world is now seeing complexities due to COVID, it is probable that India too may see linked health issues and undiagnosed co-morbidities over period. So let's say if a person was positive with SEVERE COVID but now absolutely fine, then how will ECG, TMT and 2D ECHO play a role in ruling out Cardiomyopathy in insured lives?

Dr. Pandit explains COVID induced Myocarditis or COVID related Cardiomyopathy is one of the problems which a small number of patients have. Sometimes some of these patients may also present with Multisystemic Inflammatory Syndrome in adults, which may happen in several weeks after the patients got better. The best way to predict that is to do an ECG and a 2D ECHO. A treadmill test should not be offered to patients without doing an ECG or a 2D ECHO, and without looking at their exercise tolerance. The treadmill test should be reserved for only patients amongst whom Coronary Atrial Disease is suspected and is best left to the Cardiologist or Physician to review and take a call whether the patient should be subjected to a Treadmill Test TMT) or not.

As per American Association for the Advancement of Science, upto half of the people in the hospital for COVID-19 have enzyme levels in their blood that signal liver damage. It may not be the virus itself that causes it. Medication or an overworked immune system can cause this, too. So the question that comes to my mind, specifically given that India is a diabetic capital of the world, is "Can a covid positive patient who was a non-diabetic at the time of covid treatment become a freshly diagnosed Diabetic post recovering from COVID in the next 6 to 12 months?"

Dr. Pandit responds "Yes, there is now a separate terminology, and we call those patients ' Post-COVID Diabetics'. Sometimes post covid patients face a significant amount of difficulty in controlling their sugar levels, right from the onset of Covid 19 and this is due to the ACE 2 receptor bindings of the Covid 19 patients. And in my opinion, it is the natural progression of the course of the disease, and the patient is not responsible for the high sugar levels in their body".

What is the possibility of a person developing Mucormycosis particularly in known Diabetics?

Dr. Pandit says "High blood glucose and diabetic patients are known to have Rhinocerebral Mucormycosis or Orbital Mucormycosis. **However, our study in Fortis Hospital has demonstrated that despite being diabetic over 5000 patients being admitted to the hospital, with around 1027 in the ICU of which 417 were diabetics, we had zero incidences of Mucormycosis in the hospital.** The reason for that was good glucose control and short protocol-driven glucose & steroid protocol (short-term protocol-driven approach). This aided the patients in having a very small exposure to the steroids, this coupled with tight glucose control helped them avoid any secondary or opportunistic infection."

Last few months have seen lots of hues and cries, deaths and pain. There have been complaints about treatments as well. Usage of Steroids like Dexamethasone was prevalent during the covid treatment. Ideally such steroids can be a cause for elevated Blood Sugar levels. So what's the medical opinion for usage of steroids and their long term impacts?

Dr. Pandit responds "Obviously yes, Dexamethasone is the mainstay of treatment. Dexamethasone and Methylprednisolone are administered to patients with hypoxia. It is imperative that the patient who has hypoxia receive these drugs. **Like any other steroids, these steroids also tend to cause an increase in the blood glucose level, however, the effect of this is not long-lasting; it has got no bearing in long-term glucose rise.** In most patients, the dosage of steroids will last for 3 to 5 days or maybe 10 days, therefore the drug-related rise in sugar levels will also stop when the dosage of stops."

One of the common things seen in covid patients was they losing weight during the Covid Treatment. So would like to seek Dr. Pandit's opinion on how does loss of weight during covid treatment affect a person from a high morbidity or mortality point of view?

Dr. Pandit says "The loss of weight in COVID19 patients is usually because of the high catabolism, which happens in the body. Patients with COVID19 usually suffer from very high fever, Tachycardia, breathing difficulty, which is associated with a lot of muscle mass being lost as well as protein being lost from the body. Therefore, such patients require some time to recover. Patients who may have to spent a long time with severe COVID, may have a high amount of morbidity as well as possible mortality. However, it is not related to a patient's weight loss but is regulated because of the disease which has caused severe catabolism. The weight usually increases and comes back to its reasonable self as the patient gradually starts to improve. Weight loss is not something seen as a permanent fixture rather it is very short-term."

Whenever a life to be insured is freshly diagnosed with some ailment (say Blood Pressure) or is under some new medication (say for Hypertension or depression etc.), as a normal underwriting protocol, insurers prefer to defer / postpone such

risks so that he / she can be better assessed with surety after 3 to 6 months once impact of medication is known. Similary, nowadays, many insurers, as a normal underwriting process, do not accept life insurance applications of immediately covid positive patients. They postpone it for 3 to 6 months. What is your medical view on this? Is it helpful or a right decision?

Dr. Pandit replies "I don't think it's the right or the best decision as in my view, **patients who have had COVID19 may be offered life insurance immediately after they recover, as long as the recovery process is looked at.** The 3 to 6 months of postponement as mentioned in the question, has no absolute clinical bearing to say that in 3-6 months the risk of morality of these patients is any different from that of the general population. However, what needs to be determined is that the patient is out of the acute phase. Once the patient is out from the acute phase, they can be offered life insurance, that should be the right decision. I would like to recommend Life Insurance Companies that a person who is seeking life insurance after COVID19 should undergo a thorough clinical examination. Followed by some basic evaluation like cardiac function, respiratory function, return of day-to-day activity, quality of life and evaluation of other existing comorbidities which were pre-existing or were developed post-COVID like Diabetes Mellitus. After taking this into due consideration the person should be offered life insurance as per the company policy.

Vaccination is the one word solution for this pandemic globally. Looking at the way things are moving and vaccination is being indirectly mandatory, looks like, there won't be any choice for most people. Now a question arises "Will vaccination confirmation by a person be a good indicator of his protection and will it save the insurers from covid and covid related risks in future?"

Dr. Pandit says "Well, vaccination is an important step in preventing COVID19. Post-vaccination, if detected with COVID19, it definitely provides you protection from getting admitted to the ICU, or from going into severe disease and death. **The incidence of vaccinated people having severe disease and death is less than 0.5%.** It is not 0% but it's extremely good; whereas, if you are not vaccinated the risk would be around 2 to 3% of the general population. Also, we need to understand that the vaccinated person generally develops enough antibodies to avoid infection, but a small number of patients could still get infected but would have asymptomatic or mild disease & they could spread to others."

Conclusion

When viruses infect us, they attach to our cells, penetrate, and make replicas of their RNA, which causes the spread. Viruses normally keep changing, and thus a new variant or a strain is born. A variant usually doesn't affect how the virus works. But sometimes they make it act in different ways. Scientists around the world are tracking changes in the virus that causes COVID-19. Their research is on, which shall guide experts to understand the pattern of COVID 19 virus, the treatment protocol, variant logic and spreading impact and how effective the vaccines are really going to be. Never know, probably Corona Virus over period may become similar to a Flu or an influenza. But everything is still under study and research mode. A large study sponsored by the W.H.O. found that Remdesivir doesn't help hospitalized patients with COVID-19 survive and doesn't even shorten the recovery time of those who do survive. These findings contradict earlier studies which found Remdesivir to be very effective over hospitalized coronavirus patients and helped them recover faster than patients who received a placebo. In an observational study from Wuhan, China, cardiac injury was seen in 19.7% of patients with confirmed coronavirus disease 2019 (COVID-19) and was an independent predictor of in-hospital mortality. Mortality among patients with cardiac injury was 51.2%, compared with 4.5% among those without cardiac injury ($P < .001$). In a Cox regression model, patients with cardiac injury (vs without) had more than a fourfold increased risk for death during the time from symptom onset to death.

In a report on nearly 4000 COVID-19 patients from the UK who were admitted to intensive care units (ICUs), two thirds of the subset who required **mechanical ventilation** died, as did one fifth of the subset who required basic respiratory support. For comparison, the report shows that of ICU patients with **viral pneumonia** who required mechanical ventilation from 2017 to 2019, slightly more than one third died.

But the picture isn't clear yet. No one can authentically conclude about COVID-19 disease or its actual impact – short term and long term or its correct treatment protocol or the overall effectiveness of vaccinations. It will be a wait and watch overall.

Source : WEBMD & MEDSCAPE

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