

## - Vaccination / Virus

# To Boost Or Not To Boost, And If Yes, How To

Research shows the need for vaccine boosters. Also, mix and match is ok. But no one should rush

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Covid transmissibility has transformed the world into a little 'Hamlet' and for those sceptics who believe that we are making 'much ado about nothing', this message is critical, for the virus will not die till it has had 'its pound of flesh'. While the world knows little about RNA viruses, we doctors are still thinking on our feet and science is constantly innovating and rediscovering ideas to play catch-up, if not overtake the corona.

Why do vaccines matter?

One fact unequivocally proven is that vaccines work. While the aim of vaccination is to prevent, it's still early days but we can definitely say that if it doesn't completely prevent, it certainly tempers and tones down the disease if any, in the post-vaccinated patient who tests positive.

Being at the forefront for the entire period, I have seen for myself, how vaccination has prevented a large majority of such patients from ICUs and ventilators and how the mortality rate has plummeted to paltry levels. Antibodies, which are Bcell and T cell mediated, certainly protect and do the job. Manufacturers preach from rooftops about how one is 90% and the other is 78% but the sum and substance is that all the currently recognised vaccines provide adequate protection after a completed course. It has unfortunately become a fad amongst people these days to get their antibody titers frequently checked following which they rejoice or rebel without realising that there is a T cell component of antibody response that is not measured.

The question then, as to how long will the response be appropriate, is now being slowly unravelled by science that is deciphering the behaviour of new virus.

Do we need booster shots?

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There is a reasonable degree of certainty that like the flu virus shot which is recalibrated and given annually to keep pace with the spectrum of the mutating influenza viruses, Covid too will need boosters, probably regularly. This can be said with scientific certainty because they have detected waning immune responses after nine months or so, making the case for an additional shot (deemed booster) a reality. Kindly note that the word booster implies extra shot and it is not a different jab from the first two shots, only an additional one.

The question of booster particularly arises in countries where there has been extensive vaccination coverage especially in the background of Omicron.

Across the world today, the most extensively used vaccines have been Astra (Covishield) and Pfizer, and a Lancet study has pronounced that a wide range of vaccines using different technologies show a robust response as a third dose when given following them. As we read this, WHO is considering an announcement to this effect.

Should the booster be the same vaccine?

There is growing consensus that the 'Mix and Match' of vaccines, wherein a different vaccine (preferably using a different technology), when given as a booster, produces a smarter hybrid response. But this does not take away from the fact that a third jab of the same is not indicated.

This brings me to our very own scenario. India started vaccinating in mid-January 2021 and the postsecond dose, probable booster timing will come up early next year. There is no need to panic, for the authorities are already studying the evidence and will soon issue guidelines which will make our booster 'official'. The fact that the Zydus vaccine, DNA-based, is round the corner and Novovax which is a protein subunit vaccine is also reaching a boiling point is noteworthy.

The take-home message is that boosters will soon be officially recognised as mandatory to beat the mutating virus and a time period will also be specified so that people don't go shopping, haphazardly inoculating themselves with any and everything. More is not always better, especially with these 'emergency approval' vaccines which can precipitate side-effects when taken in excess.

Again, for the disbelievers and anxious, remember, Omicron as of now is only recognised as a rapidly transmissible variant but it produces a mild disease. Also, besides Molnupiravir, we have two more oral drugs to 'tame the shrewd' virus. So, there is no need to despair.

Notwithstanding all this cheer, your mask and Covid-appropriate behaviour have no substitutes to bring this saga to an 'Antim' end.