



**HEALTHY
UPDATE**

**C. U. SHAH MEDICAL
COLLEGE,
SURENDRANAGAR
GUJARAT**

**INFORMATION
ON ADVANCES
IN HEALTHCARE**

**NEWS AND
VIEWS**

HEALTHY UPDATE
With frequent updates

**“Disseminating information is as important as generating
and collecting them”**

HEALTHY UPDATE

**is an attempt to collect and disseminate significant updates
related to the field of medicine and health-care.**

**Dedicated to all those
who are hungry for knowledge
and are willing to share it
with like minded.**

EDITORIAL TEAM

HEALTHY UPDATE

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01-04-2021
1st April – Corona

1534: Reuters Excerpts: Super spreader and Super-spreader events, in which an infected person transmits the virus to many other people, are critical to the survival and predominance of new variants.

If coronavirus transmission only occurs one person at a time, a new variant is unlikely to gain a foothold and will usually die out in the population by chance.

Even very strong variants can die out if they are 'unlucky' and don't happen by chance to be transmitted in a super-spread event.

Early super-spreader events infecting more than five people are critical to a variant's survival, while super-spreader events infecting more than 20 people are critical to its eventual predominance.

Even a very infectious new variant usually needs a super-spreader event to help it overtake a current variant.

1535: Reuters Excerpts: Antibodies induced by the Pfizer/BioNTech and Moderna vaccines and the antibody therapy from Regeneron Pharmaceuticals all are able to neutralize a coronavirus variant on the rise in New York.

The New York variant contains mutations - E484K, S477N and D235G - that experts feared might reduce antibody efficacy. The new results "show that this potential problem is not going to be a problem," said Nathaniel Landau of New York University, who coauthored a report posted on bioRxiv ahead of peer review.

The mutations all cause changes to the spike protein the virus uses to infect cells and are located in the part of the spike protein where antibodies bind.

The researchers exposed replicas of the New York variant to blood from recipients of either the vaccines or the Regeneron antibody combination used to treat infected patients.

1536: Reuters Excerpts: Rare but serious blood clots reported among some people who received AstraZeneca's COVID-19 vaccine is similar to heparin-induced thrombocytopenia (HIT), in which heparin triggers the immune system to produce antibodies that activate platelets. Drugs other than heparin can cause clotting disorders that strongly resemble HIT, and the researchers suspect that in rare cases, the AstraZeneca vaccine may be another such trigger.

Four previously healthy individuals who got the AstraZeneca shot and developed life-threatening clots had the same kind of antibodies that activate platelets and initiate clotting in HIT, the researchers reported in a paper posted on Research Square ahead of peer review.

Twenty individuals who received the vaccine but did not develop clots did not have these antibodies. An editorial comment posted with the study noted that drug-induced thrombocytopenia is treatable if identified promptly.

1537: Phase III clinical trials show that Pfizer's coronavirus vaccine is 100% effective in protecting children 12-15 years old from infection, the company said in a [news release](#). The study enrolled 2,260 adolescents ages 12-15. No infections were reported in the group given the vaccine produced by Pfizer and its European partner, BioNTech. The placebo group reported 18 cases of COVID-19. The vaccinated children showed a strong antibody response with no serious side effects. Albert Bourla, PhD, chairman and CEO of Pfizer, said the company plans to seek FDA emergency use authorization, which could allow this age group to be vaccinated before the start of the next school year. Pfizer will also seek authorization from the European Medicines Agency.

1538: (Reuters Excerpts Health) - Antibodies against SARS-CoV-2 are likely to wane at different rates depending on the severity of the infection. The researchers followed 164 COVID-19 patients for up to nine months after infection. They identified five distinct groups based on patterns of neutralizing antibodies.

- A 'negative' group of patients who did not develop neutralizing antibodies at the 30% inhibition level. These people comprised 12% of patients in the study.
- A 'rapid waning' group (27%) who had varying early levels of antibodies from around 20 days after symptom onset, but sero-reverted in less than 180 days.
- A 'slow waning' group (29%) who remained mostly antibody-positive at 180 days post-symptom onset.
- A 'persistent' group (32%) who showed little change in their antibody levels up to 180 days.
- A 'delayed response' group (2%) who showed a marked rise in neutralizing antibodies during late convalescence (at 90 r 180 days after symptoms appeared).

In their Lancet Microbe paper, the researchers note that persistence of neutralizing antibodies was associated with disease severity and sustained levels of pro-inflammatory cytokines, chemokines, and growth factors. However, T-cell responses showed "no clear correlation" with the different patterns of neutralizing antibody dynamics. T-cell responses were similar among the different groups.

SOURCE: <https://bit.ly/3cvjJUS> The Lancet Microbe, online March 23, 2021.

PreventCOVIDU trial

1. Thousands of college students are participating in a new trial – PreventCOVIDU. The trial is aimed at evaluating how well COVID-19 vaccines decrease the risk of COVID-19 transmission.
2. The open-label randomized trial aims to assess if vaccine prevents both infection and transmission of SARS-CoV-2 among college students.
3. This NIH-funded study will include 12,000 college students, 18 to 26 years of age, from over 20 universities, and may last for 5 months.
4. A total of 6,000 students will be administered their first dose of the Moderna vaccine immediately while others will serve as controls and will be given their vaccine after 4 months.
5. All participants will eventually be given the usual two doses.
6. Participants will swab their noses every day, provide blood samples periodically, and complete surveys via an electronic diary app. They will also follow their university's COVID-19 protocols and will be tested twice a week.
7. Another 25,000 individuals whom participants will identify as close contacts will also be required to provide blood samples, take daily nose swabs for 2 weeks, and answer weekly questionnaires.
8. Investigators will ascertain the degree of transmission from vaccinated individuals by the infection rate in close contacts.
9. Participants will be paid for the daily swab collection, with the amount depending on locations and other factors.
10. Exclusion criteria for the trial include: Self-reported history of SARS-CoV-2 infection; having received blood products, systemic immunoglobulins, or monoclonal antibodies (including against SARS-CoV-2) within 90 days prior to first vaccination; and having received of investigational research agents within 30 days prior to first vaccination.
11. Additionally, students who have already received a COVID-19 vaccine dose, have been given an immunosuppressive medication within 168 days, or have a clinically significant medical condition are not eligible to participate in the study. (Medpage Today)

COVID-19 origins report inconclusive, says WHO chief

A team of international scientists put together by the World Health Organization (WHO) to probe how COVID-19 first spread to humans published their report on Tuesday. The report has been described by the WHO chief as a welcome start, but inconclusive.

WHO Director-General, Tedros Adhanom Ghebreyesus, stated that the source of the virus has not been identified yet, and that we need to continue to follow the science. He added that while much data was available, to completely understand the earliest cases, access is needed from Chinese authorities to data including biological samples from September, 2019.

While the team of scientists confirmed widespread contamination in the large animal market of Huanan, the source of contamination could not be determined... (UN, March 30, 2021)

T cells induced by COVID-19 respond to new variants

A U.S. laboratory study suggests that T cells that respond to fight infection from the original version of the novel coronavirus appear to provide protection against three of the concerning new virus variants as well.

The study by researchers at the National Institute of Allergy and Infectious Diseases (NIAID) assessed blood samples from 30 individuals who had recovered from COVID-19 prior to the emergence of the new variants. Investigators identified a specific form of T cell from these samples that was active against the virus, and analyzed how these T cells worked against the new variants from South Africa, the UK and Brazil. The T-cell responses remained intact to a great extent and were able to identify all mutations in the variants that were assessed. The paper, accepted for publication in *Open Forum Infectious Diseases*, remains to be peer reviewed... (Reuters, March 31, 2021)

Is it essential to disclose the names of the members of a surgical team?

Not disclosing the names of doctors in the surgical team may amount to deficiency of service. In a judgement, the Kerala State Consumer Disputes Redressal Commission presiding members M.K. Abdulla Sona and A. Radha directed the Travancore-Cochin Medical Councils-Kerala (TCMC-K) to instruct all doctors to display their medical council registration numbers on their signboards and quote the registration numbers in all prescriptions and case sheets. The commission stated that mentioning the registration number in the doctors' prescriptions, case-sheets and signboards would help patients obtain all the information they need about the doctor, including if they had the required qualifications. The commission also stated that the patient has the right to know the details of every doctor who accompanied the leader of the surgical team, including the anesthesiologist. Denying this would be considered as deficiency of service and unfair trade practice under the provisions of the Consumer Protection Act.

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