

# **THREE THINGS** EVERY NURSE NEEDS TO KNOW ABOUT ANTIBODY TESTING FOR COVID-19

## **1. A POSITIVE ANTIBODY TEST DOES NOT ESTABLISH IMMUNITY**

The human body develops and produces antibodies in response to viral infections. However, these antibodies do not always provide full immunity against future infections. The World Health Organization (WHO) published an issue brief on COVID-19 antibody testing and “immunity certificates” where they said:

*WHO continues to review the evidence on antibody responses to SARS-CoV-2 infection (the virus that causes COVID-19). Most of these studies show that people who have recovered from infection have antibodies to the virus. However, some of these people have very low levels of neutralizing antibodies in their blood, suggesting that cellular immunity may also be critical for recovery. As of 24 April 2020, no study has evaluated whether the presence of antibodies to SARS-CoV-2 confers immunity to subsequent infection by this virus in humans*

It may be years before we understand the immune response to SARS-CoV-2 and what level of protection—if any—is provided.

## **2. ANTIBODY TESTS CAN BE UNRELIABLE AND INCONCLUSIVE**

Many antibody tests currently available have high rates of false positives and/or false negatives. Some COVID-19 antibody tests can also mistake antibodies for other types of coronaviruses, such as the common cold, for antibodies for SARS-CoV-2.

The U.S. Food and Drug Administration (FDA) only recently started implementing oversight to address concerns about validity and reliability of antibody tests. For many months, the FDA allowed numerous faulty antibody tests to be marketed.

## **3. TARGETING HEALTH CARE WORKERS FOR ANTIBODY TESTING RAISES ETHICAL CONCERNS**

Many policy makers and employers have plans to use antibody tests to make decisions about re-opening, returning workers to work, and what protections to provide to workers. Health care workers have been specifically targeted for antibody test studies.

Employers, researchers, and policy makers have discussed using antibody tests to select and place health care workers during a second wave of COVID-19 patients expected later this year. It is unethical to place health care workers with positive antibody test results in higher risk situations with less protection.

### **Sources:**

Edwards, Erika, “Antibody tests need to be in place for 2nd coronavirus wave, CDC director says,” NBC News, April 13, 2020, online at <https://www.nbcnews.com/health/health-news/antibody-tests-need-be-place2nd-coronavirus-wave-cdc-director-n1182621>.

Hahné, Susan J.M., et al., “Measles Outbreak Among Previously Immunized Healthcare Workers, the Netherlands, 2014,” *The Journal of Infectious Diseases*, 2016, 214(12): 1980-6.

World Health Organization, *Scientific Brief: “Immunity passports” in the context of COVID-19*, April 24, 2020, online at <https://www.who.int/news-room/commentaries/detail/immunity-passports-in-the-context-of-covid-19>.

### **Different immune responses to viruses:**

**MEASLES** Usually lifelong immunity is achieved after one infection. However, measles antibody titers have been shown to decrease over time and there are reports that health care workers with positive titers have been infected.

**DENGUE** Antibodies from infection with one strain may cause increased severity of infection with a second strain.

### **SEASONAL CORONAVIRUSES**

Immunity can last from a few months up to one year.

### **SARS and MERS**

Antibodies appear to persist between two and three years.

There is no evidence showing that the presence of antibodies for SARS-CoV-2 provides long-term immunity. Workplace protections for nurses and other health care workers are necessary regardless of antibody status!

***ALL nurses and other health care workers must be fully protected from COVID-19 exposure by their employers. For more information visit: [www.NationalNursesUnited.org/covid-19](http://www.NationalNursesUnited.org/covid-19)***

**#ProtectNurses. All Our Lives Depend On It.**

