



## **“I can only recommend avoiding contact with the coronavirus as much as possible.”**

Interview with Prof. Dr. Mark Dominik Alscher, Executive Medical Director at the Robert Bosch Hospital in Stuttgart, Germany

December 18, 2020  
PI 11252 RB DW/af

*Professor Dr. Mark Dominik Alscher is the Executive Medical Director at the Robert Bosch Hospital in Stuttgart, Germany. In this interview, the experienced physician shares his thoughts on the coronavirus pandemic from a medical perspective, how the Bosch rapid coronavirus test and the Vivalytic analysis device are used in everyday medical settings, and what protective measures he recommends to combat the coronavirus.*

### **Professor Alscher, the number of coronavirus cases is rising around the world. Is this a surprise, or something you were expecting?**

*Prof. Alscher:* Unfortunately, what’s happening now is just what we expected: a second major coronavirus wave with a shutdown in Germany and other countries. There was always the risk of a second wave like this in the fall and winter in the northern hemisphere, quite simply because viral infections are more common during the colder months. In addition, people gather together more frequently indoors and the mucus membranes are more susceptible to virus infection.

### **What is the current situation at the Robert Bosch Hospital?**

*Prof. Alscher:* We’ve seen a marked rise in positive coronavirus tests at our testing center. We’re also needing to admit more and more patients to the hospital – and unfortunately also put them on ventilators. At the moment, we have three times as many patients in hospital beds as we did at the peak earlier this year. The fact is, the number of cases in Germany has returned to the record high of the spring and we expect it to go still higher over the coming days and weeks. In other words, we are assuming that this winter we’ll be treating more patients in the hospital than we did this past spring. At the Robert Bosch Hospital, our beds are constantly filled with Covid-19 patients, including young

people. Sadly, we also have fatalities among patients in their 40s and 50s who came to us with no preexisting conditions.

**How are your patients primarily getting infected?**

*Prof. Alscher:* In the spring and summer, patients were getting infected mainly during vacations abroad and at private gatherings. Then we saw a scattered outbreak pattern, especially in metropolitan areas. Anywhere you have lots of people getting together, the virus spreads and the number of cases rises. Infection is now happening increasingly at home. In addition, many patients have no idea where or from whom they were infected.

**We repeatedly read reports that although the number of cases is on the rise, the course of the disease is becoming less severe. Could you comment on that?**

*Prof. Alscher:* I think that's a misperception. Again we're seeing many people in their 70s and 80s who have to be admitted to the hospital, and they have the same complications and difficult disease progression that we saw in the spring. No one is safe from the virus. Young people are also developing severe symptoms. And there are some cases where the patient initially has mild symptoms, but then suffers long-term effects. I can only recommend avoiding contact with the virus as much as possible.

**What can you tell us about the long-term effects?**

*Prof. Alscher:* In the hospital we mainly have patients with acute symptoms, so we don't have a full overview of the long-term effects. But there are reports that a significant percentage of patients, young people included, experience long-term consequences. These include chronic fatigue, an inability to engage in physical exercise, and the loss of key functions of the central nervous system.

**What does that mean exactly?**

*Prof. Alscher:* Memory performance can be permanently impaired; for example, some patients who have recovered from Covid-19 have trouble remembering things.

**The Robert Bosch Hospital uses the Bosch Vivalytic testing devices to conduct the rapid coronavirus tests. Could you give us some feedback on their usage?**

*Prof. Alscher:* Conventional testing methods often take four to six hours to produce a result. As a matter of principle, we use only the PCR test for Covid-19 patients. Occasionally we'll also use an antigen test to quickly detect highly infectious patients, but we always double-check the result with a PCR test. The Vivalytic testing device, which features a 39-minute PCR test for the coronavirus,

is almost as fast as the rapid antigen test and is much more accurate and precise. If we had enough PCR tests like the one from Bosch, which can determine a positive result in under 30 minutes, we wouldn't need to run antigen tests anymore. Why we still use rapid antigen tests at all has to do with the fact that they are currently more available and cheaper.

**The new Bosch rapid coronavirus test can deliver results for positive samples in under 30 minutes. Why are fast and reliable test results so important?**

*Prof. Alscher:* Anyone who has an undetected coronavirus infection risks infecting others despite any precautions they may take. A PCR result that is available after 30 minutes helps keeping that risk much lower.

**In your opinion, what further advantages does the universal Vivalytic platform offer?**

*Prof. Alscher:* Lab tests can be performed on the spot. There's no need for a laboratory. In the future, tests for germs besides coronaviruses are conceivable as well. This means that lab results will be available quickly, directly where they are needed for a decision.

**We all hope that a vaccine will contain the coronavirus pandemic next year. Will this make the Vivalytic platform obsolete?**

*Prof. Alscher:* PCR tests will continue to be necessary for the coronavirus. One reason is that not all people will want to be vaccinated; another is that it will be a long time before everyone who wants a vaccination can actually get one. Furthermore, there's no guarantee that the vaccine will provide complete protection. There will always be new infections.

**What other PCR tests can you envision over the medium and long term?**

*Prof. Alscher:* In principle, tests with PCR, which stands for polymerase chain reaction, can detect any molecule. This means they can be used for new infective agents as well as for highly infectious germs or viruses, including multidrug-resistant hospital germs (MRSA) and the norovirus. They could conceivably be used universally. The strengths of the Vivalytic devices lie in their ease of use and the rapid availability of test results on the spot.

**Let's go back to the current situation for a moment. How can we best protect ourselves and others?**

*Prof. Alscher:* Everyone can contribute a great deal just in their own personal environment by maintaining social distancing, routinely wearing a mask, limiting all unnecessary contact, using digital communication options, and thus keeping the risk of transmission for themselves and others to a minimum. It seems that

vaccinations will be able to start very soon. Vaccination is the most effective protection, and I can really only recommend that everyone gets one. The vaccine will initially be available only for risk groups and frontline healthcare workers, but once the strategy takes hold, larger groups of people could be vaccinated starting in the spring. The Robert Bosch Hospital will serve as a central vaccination location – first for those groups that the authorities have designated. Once those groups have been vaccinated, we will open up to the rest of the population.

### **How would you assess the situation now after ten months of the pandemic?**

*Prof. Alscher:* The pandemic will continue to keep us busy. This second wave is much bigger and is lasting longer than the first. Measures to limit contact and protect against infection will continue to be crucial to keep this wave from becoming too severe. We have seen that simple measures can be very effective: maintaining distance to others, wearing a mask, washing your hands. These are now being backed up by vaccinations, a step that I can only welcome. We very much hope that the coming spring will help ease the situation with warmer temperatures. That's also when we expect to see the first fruits of the widespread vaccination campaigns. However, the pandemic won't truly be over until we have sufficient quantities of an effective vaccine. Our hope is that this will be in the first quarter of 2021. That would mean there's a chance that one year from today, Covid-19 won't be a major issue anymore. Apart from that, I believe we will experience more pandemics in the future. This is something that we as society need to prepare for – but also something we can handle.

**Press photo:** #bcf4991f

### **Contact person for press inquiries:**

Dörthe Warnk,

Phone: +49 711 811-55508

Twitter: @d\_warnk

*The Bosch Group is a leading global supplier of technology and services. It employs roughly 400,000 associates worldwide (as of December 31, 2019). The company generated sales of 77.7 billion euros in 2019. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and*

*regional companies in 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. Bosch employs some 72,600 associates in research and development at 126 locations across the globe, as well as roughly 30,000 software engineers.*

*The company was set up in Stuttgart in 1886 by Robert Bosch (1861–1942) as "Workshop for Precision Mechanics and Electrical Engineering." The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant upfront investments in the safeguarding of its future. Ninety-two percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust. The remaining shares are held by the Bosch family and by Robert Bosch GmbH.*

*Additional information is available online at [www.bosch.com](http://www.bosch.com), [www.iot.bosch.com](http://www.iot.bosch.com), [www.bosch-press.com](http://www.bosch-press.com), [www.twitter.com/BoschPresse](https://twitter.com/BoschPresse).*