The Diving Medical Advisory Committee

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DMAC Statement on COVID-19 Vaccination and the Offshore Energy Diving Community

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COVID-19 is a viral infection caused by the SARS-CoV-2 virus and may develop into severe and potentially lethal disease. There is no specific treatment for COVID-19 once a person is infected. For offshore divers, COVID-19 is of special concern for several reasons:

- Social distancing is an important measure to stop the spread of the virus. This is difficult to maintain on an offshore vessel, and in practice impossible in a hyperbaric chamber and at a dive station (i.e. where all diving team members and technicians have to interact closely, before, during and after a surface-demand dive). If one person is infected, other persons on the same team will be exposed to the virus.
- Handling a severe case of COVID-19 in a saturation chamber is much more complex than in a hospital intensive care unit, with a higher likelihood of negative outcome.
- COVID-19 is primarily a disease of the airways, with pneumonia as one of the more common complications. Lung injury is a potential long-term effect which in turn may influence the diver's fitness to return to work. In addition, COVID-19 has been shown to affect the endothelial function and may increase susceptibility to decompression illness.

Several vaccines have been developed and have been proven to prevent COVID-19 effectively. Based on efficacy and safety, the World Health Organization (WHO) has, as of September 2021 validated eight COVID-19 vaccines for emergency use listing. The European Medicines Agency (EMA) has authorised four vaccines and the US Food and Drug Administration (FDA) has approved one vaccine and given "Emergency Use Authorization" to two other vaccines.

The efficacy and safety of vaccines is documented in large studies before approval is given. In addition, studies have been conducted on clinical use of the vaccines, confirming that they are safe and effective. New studies have also assessed the efficacy against the delta variant of the SARS-CoV-2 virus, which is currently predominant in most countries. A study of 19,000 persons with COVID-19 in the UK showed 67% and 88% effectiveness against symptomatic infection with the delta variant for two different vaccines [1]. In a register study including 4.2 million persons in Norway, the authors found that mRNA-vaccines offered 65% protection against symptomatic and asymptomatic infections with the delta variant [2]. Vaccines are particularly effective at preventing severe COVID-19 infection, including with the delta variant. In a Norwegian study, the authors found a 76% reduced risk for hospitalisation for vaccinated persons compared to unvaccinated [3]. In a not yet peer reviewed study from the UK, the vaccine effectiveness against hospitalisation was estimated at 96% and 92% for two different vaccines [4]. It has also been shown that vaccination reduces person-to-person transmission of the SARS-CoV-2 virus [5].

COVID-19 vaccines are generally well tolerated. The most common side effects are pain at the injection site, tiredness, headache, muscle pain, chills, fever and nausea. These are usually mild and short-lasting. More serious side effects have been reported, but these are rare. As with all other vaccines, there is a small risk of serious allergic reactions immediately after vaccination. There have also been reports of blood clotting and inflammatory heart conditions that may be linked to vaccinations. Such potential side effects are extremely rare. In the Norwegian Medicines Agency report on suspected adverse reactions to COVID-19 vaccines published on September 14 2021, the frequency of serious potential side effects is 3.7 cases per 10,000 vaccinations [6]. In a report from the Italian Medicines Agency the frequency of adverse side effects was 119 per 100,000 vaccinations based on a total of 76 million doses administered [7]. 86% of these cases were categorised as non-serious.

DMAC, the independent body comprising diving medical specialists from across Europe, seeks to provide advice about medical and certain safety aspects of commercial diving.

Although COVID-19 vaccination significantly reduces the risk of infection, it does not eliminate it completely. All divers and diving contractors are therefore urged to continually monitor for symptoms of COVID-19 disease, which may be less severe in vaccinated individuals.

It is DMAC's position that, although vaccination side effects may occur, the known risks of COVID-19 illness and its related, possibly severe complications, far outweigh the potential risks of having an extremely rare serious adverse reaction to vaccination. DMAC therefore strongly recommends that offshore divers and diving personnel follow national recommendations for primary vaccinations and booster doses. Vaccination will reduce the risk of severe COVID-19 infection significantly. In doing so, it will also markedly reduce the risk of divers who contract COVID-19 from suffering severe complications that may cause career limiting long-term health effects.

Any non-vaccinated person joining a group of vaccinated people in a working environment where preventive measures like social distancing cannot be maintained, represents a significant increase in risk. Diving contractors wishing to control risks as far as reasonably practicable should take account of this, within the applicable legislative framework.

References

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