

OHA study: No link between COVID-19 vaccine, cardiac deaths

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COVID-19 vaccination is not linked to death from cardiac causes among previously healthy young people, according to an Oregon Health Authority (OHA) study published by the Centers for Disease Control and Prevention (CDC).

The study, appearing today in the CDC's Morbidity and Mortality Weekly Report (MMWR), examined nearly 1,300 deaths among Oregon adolescents and young adults – ages 16 to 30 – occurring over 19 months during 2021 and 2022. It found that none of the fatalities that happened within 100 days of receiving an mRNA COVID-19 vaccine dose was attributed to vaccination.

The findings answer a question that's lingered since early 2021 as state and federal public health agencies rolled out new mRNA vaccines during the pandemic: Do rare cases of myocarditis associated with COVID-19 vaccination put people at increased risk for cardiac death?

Study co-authors Paul Cieslak, M.D., and Juventila Liko, M.D., M.P.H., of OHA's Acute and Communicable Disease Prevention Section, say suggestions of an association between receipt of an mRNA COVID-19 vaccine dose and sudden cardiac death among healthy adolescents and young adults are not supported by the Oregon data they reviewed.

"According to information recorded on death certificates, among 1,292 deaths of persons 16 to 30 years of age from June 2021 to December 2022, none was found to have been caused by COVID-19 vaccination," said Cieslak, medical director for communicable diseases and immunizations.

Of 40 deaths that occurred among persons who had received an mRNA COVID-19 vaccine dose, only three occurred within 100 days after vaccination. However, two of the deaths were attributed to chronic underlying conditions, and the cause was undetermined for one. No death certificate attributed death to vaccination.

Cieslak noted there were 30 deaths among persons this age that were caused by COVID-19. Among these 30 decedents, he said, the state's ALERT Immunization Information System (IIS) database had records for 22 (73%), only three of whom had received any COVID-19 vaccination.

"Studies have shown significant reductions in COVID-19-related mortality among vaccinated persons; during the first 2 years of COVID-19 vaccine availability in the United States, vaccination prevented an estimated 18.5 million hospitalizations and 3.2 million deaths," Cieslak and Liko wrote in their report.

The researchers acknowledged two limitations in their findings.

First, they could not exclude the possibility of vaccine-associated cardiac deaths more than 100 days after COVID-19 vaccination. They also pointed out that published data indicate potential adverse events associated with vaccinations tend to occur within 42 days of vaccination.

Second, although nearly a million adolescents and young adults had received a COVID-19 vaccination during the period of the study, the research could not exclude a rarer event among vaccinees in this age group.

"Nevertheless," Cieslak said, "it is clear that the risk, if any, of cardiac death linked to COVID-19 vaccination is very low, while the risk of dying from COVID-19 is real. We continue to recommend COVID-19 vaccination for all persons 6 months of age and older to prevent COVID-19 and complications, including death."