Studies confirm safety of AstraZeneca and other COVID vaccines against threat of blood-clotting disorders

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A recent population-based study commissioned by the European Medicine Agency (EMA) found that blood-clotting events after receiving the AstraZeneca COVID vaccine were the same or less frequent than for those who received the Pfizer mRNA vaccine.

Early in March 2021, concerns had been raised over blood-clotting events associated with the AstraZeneca vaccine. On April 7, 2021, the safety committee of the EMA concluded that there may be a link between the AstraZeneca vaccine and very rare cases of unusual blood clots, recommending it be listed as a side effect. These rare blood clots occurred in veins in the brain (cerebral venous sinus thrombosis, CVST), the abdomen (splanchnic vein thrombosis) and in arteries, in combination with low levels of blood platelets.

The announcement came on the heel of dozens of European countries, including Germany and France, suspending their use of AstraZeneca in March on reports of a handful of cases where the blood clots had proven fatal, prompting national and international health authorities to investigate the reports.

These developments had been preceded by an open brawl among European powers over AstraZeneca's inability to meet delivery schedules, with some EU governments attacking the pharmaceutical company (based in Britain and Sweden, Britain not being a member of the EU, Sweden outside the euro zone) on a clearly nationalistic basis.

The vaccine was jointly developed by the bi-national company and Britain's Oxford University and was promoted as a vaccine for the world. At one to two dollars a shot, it was intended to provide the world access to a cheap and readily storable vaccine. Meanwhile, Pfizer ($18.20 to $23.00 per shot) and Moderna ($22.60 to $25.50) have recently increased their prices by as much as 25 percent.

French President Emmanuel Macron openly denigrated the AstraZeneca vaccine in January, calling it quasi-effective. The repercussions had a disastrous impact on the European and global vaccination campaign, causing significant mistrust and confusion regarding the benefits of the vaccine against SARS-CoV-2.

Since the announcement, many European countries, as well as Australia and Canada, have stopped using AstraZeneca in younger people (those under 50 or under 60). The US has yet to approve the vaccine despite tens of thousands of doses being stockpiled.

A dismayed Adam John Ritchie, a project manager at the University of Oxford's Jenner Institute, explained, "The thing that terrified me more than anything else is that the one vaccine that's not-for-profit is the one that has been dumped on over and over and over again." He added that he felt AstraZeneca was made a "scapegoat" at a period in the EU vaccination campaign when it was struggling to ramp up its efforts.

As *Politico* observed, "But as these excess doses headed toward developing countries, the cascading negative press of the past few months is exacerbating the reluctance to accept it. These nations are caught in a bind—highly dependent on the Oxford/AstraZeneca vaccine but increasingly looking to other [unavailable] options."

A week after the EMA's announcement, the World Health Organization's regional director of Africa, Dr. Matshidiso Moeti, in comments which received hardly a mention in the mainstream press, noted that 12 million doses of AstraZeneca COVID vaccines had been administered without any cases of blood coagulation disorders being reported.

She added (this in April), "To date, more than 200 million people have received AstraZeneca vaccines around the world, and cases of blood clots and low platelets are extremely low—fewer than 200 cases have been reported. COVID-19 on the other hand has claimed nearly three million lives worldwide."

Though real-world data demonstrated that the AstraZeneca vaccine is equivalent to Pfizer's in preventing severe disease and hospitalizations caused by the Delta variant, South Africa opted not to use it and sold its supply to other African nations due to reported poor efficacy against the Beta variant that had developed in that country. More recently, however, with the dominance of the Delta variant, newly appointed South African Minister of Health Joe Phaahla told the press that the government would begin using AstraZeneca.

In a recent publication in *The Lancet*, AstraZeneca researchers provided context for the number of cases of Thrombosis with Thrombocytopenia Syndrome (TTS) reported to their "global safety database, which captures all spontaneously reported adverse events from real-world use of its medicines and vaccines worldwide."

In short, there were 399 cases of TTS among 49.23 million first doses of their COVID vaccines and 13 cases among 5.62 million recipients of the second dose. Based on the exposure level, the number of cases of this dreadful complication is between two to

eight for every million vaccinees. By comparison, COVID-19 killed 9,000 people globally just on August 7, 2021.

In other words, COVID-19 killed in one hour the number of people who contracted TTS blood clots in the five months of administering the AstraZeneca vaccine, most of whom did not die. The current cumulative total places reported COVID-19 deaths at 4.3 million, and by all accounts, a woeful underestimate.

TTS is a serious condition. However, the risk estimates presented by AstraZeneca appear to be comparable to real world incidences. The CDC's Advisory Committee on Immunization Practices (ACIP) during an April 14, 2021, presentation placed the rate of this event in the general population at 2.2 to 15.7 per one million persons. The median age among those developing the condition was 37, with a female to male predominance of three to one. The data reported is consistent with several publications noting this incidence rate in the population.

Turning now to the recent *Lancet* report that is in preprint, researchers from Spain, the UK, and the Netherlands had sought to compare the rates of blood-clotting disorders and low platelet counts following vaccination with BNT162b2 (Pfizer's mRNA COVID vaccine) and ChAdOx1 (the AstraZeneca/Oxford adenoviral vector vaccine) to answer the important questions about the potential adverse effects associated with the vaccines and compare that to COVID-19 infections. They used the average of such blood-clotting events in the general population as their comparative reference.

The study included nearly 946,000 who received the Pfizer vaccine (82.3 percent fully vaccinated), over 426,000 with the AstraZeneca vaccine, and close to 223,000 who were infected with COVID-19. Data on almost 4.6 million "background participants" was used for the general population average. Their findings led them to conclude that "in this study, including 1,372,213 people vaccinated against SARS-CoV-2, similar safety profiles were seen for both vaccines."

The rates of deep vein thrombosis (DVT), blood clots in the legs, was similar in those receiving the first dose of the vaccines and slightly elevated above background (general population) levels. However, COVID-19 patients had more than a three-fold rise in this category.

In the category of pulmonary embolism, or clots to the lung, again, both vaccines were similar to background though Pfizer's was slightly higher and the difference was statistically significant. However, those with COVID-19 infections had a 15-fold rise in this complication.

In the category of overall venous thromboembolism, those receiving the Pfizer vaccine had, once again, a slightly higher and significant risk of such a complication, while those receiving the AstraZeneca vaccine did not demonstrate a significant increase. By comparison, those with COVID-19 infections had an eight-fold rise, again, highlighting the dangers associated with infection.

The risk associated with heart attacks and strokes was only elevated for those with COVID-19 infections. Cases of arterial blood clots and TTS were quite low and in line with expected rates for both COVID vaccines. Less than five cases of TTS were identified among those receiving the AstraZeneca COVID vaccine. The incidence rate among those receiving the Pfizer vaccine was consistent with population-based rates.

In distinction to their findings, the authors referenced a previous study from Denmark and Norway of more than 280,000 people vaccinated with the AstraZeneca shot that showed rates of Venous Thromboembolism (VTE) were twice as high as expected. In that study, VTEs were driven by cerebral venous sinus thrombosis (CVST) events. Such events were not increased in the later study, though among women between the ages of 20 and 44, the study found a higher incidence of Deep Vein Thrombosis (DVT) with AstraZeneca. On the other hand, rates of low platelet counts were higher in the Pfizer group, particularly in men ages 20 to 40 years.

These continued and ongoing studies and analysis are necessary both to establish the risks associated with these treatments, as well as comparing these risks to the benefits the vaccines offer, not just in preventing COVID-19 itself, but in reducing the blood-clotting complications associated with COVID infection.

However, these studies also suggest the danger of politicizing research, which can only work to dissuade the population from seeking these life-saving measures. The mixture of national tensions, commercial considerations and elements of panic over AstraZeneca's COVID vaccine led to major slowdowns in the vaccination program in Europe and other countries globally. It fueled vaccine skepticism and hesitancy that furthered the unnecessary rise in preventable deaths.

The exceedingly small risk associated with AstraZeneca was elevated to a major political and media talking point and detracted from focusing on the enormously greater dangers associated with the pandemic infections. Vaccines should be evaluated on the basis of science and not hysteria. The case of AstraZeneca is just one example among many of how the vaccine rollout has been distorted and rendered less effective by the commercial concerns and national tensions inherent to capitalism.