COVID-19 Critical Intelligence Unit: Evidence on AstraZeneca and blood clots

In brief

Emerging evidence on AstraZeneca vaccine and blood clots 17 March 2021

Background

- AstraZeneca vaccine (AZD1222 / ChAdOx1) is a viral vector vaccine. It can be stored at 2-8°C and has been assessed as having an acceptable safety profile.

- The original recommended schedule was two doses, 28 days apart. The UK is administering two doses, 12 weeks apart. In Australia, the Therapeutic Goods Administration has determined that the vaccine can be safely administered between four and 12 weeks apart.

Evidence regarding blood clots

- The BMJ (11 March 2021): Denmark temporarily suspended use of the AstraZeneca vaccine after reports of blood clots and one death. Eight other countries including Norway, Iceland, Austria, and Italy have also suspended use of the vaccine. Since this publication, at least 15 other countries have suspended AstraZeneca vaccinations. The reported cases include one with multiple thrombosis, who died 10 days after vaccination. Another case was admitted to hospital with pulmonary embolism after being vaccinated. There were two other reports of thromboembolic event cases received by the European Medicines Agency (EMA).

- European Medicines Agency (11 March 2021): The EMA states there is currently no indication that vaccination has caused thromboembolic events. The safety committee states the vaccine’s benefits continue to outweigh its risks, and the vaccine can continue to be administered while investigation of cases of thromboembolic events is ongoing.

- Therapeutic Goods Administration (12 March 2021): The TGA has received no reports of blood clots following use of the AstraZeneca vaccine in Australia. Extensive international experience does not indicate an increased risk of blood clots associated with the vaccine.

- AstraZeneca (14 March 2021): A review of all available safety data of more than 17 million people vaccinated in the European Union and UK with the AstraZeneca vaccine has shown no evidence of an increased risk of pulmonary embolism, deep vein thrombosis or thrombocytopenia; in any defined age group, gender, batch; or in any particular country.

- European Medicines Agency (15 March 2021): The overall number of thromboembolic events in vaccinated people does not seem to be higher than in the general population. While its investigation is ongoing, the EMA retains the view that the benefits of the AstraZeneca vaccine in preventing COVID-19, outweigh the risks of side effects.

- UK Government (16 March): It has not been confirmed that the reports of blood clots were caused by the AstraZeneca COVID-19 vaccine. People should continue to get vaccinated.

- CNCB News (16 March): Many countries, including the UK, Canada and Australia are continuing to deploy the vaccine and seeking to reassure citizens about its benefits.

A Critical Intelligence Unit living evidence table on COVID-19 vaccines is updated daily

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Rapid evidence checks are based on a simplified review method and may not be entirely exhaustive, but aim to provide a balanced assessment of what is already known about a specific problem or issue. This brief has not been peer-reviewed and should not be a substitute for individual clinical judgement, nor is it an endorsed position of NSW Health.