## **COVID-19 & Vaccines**

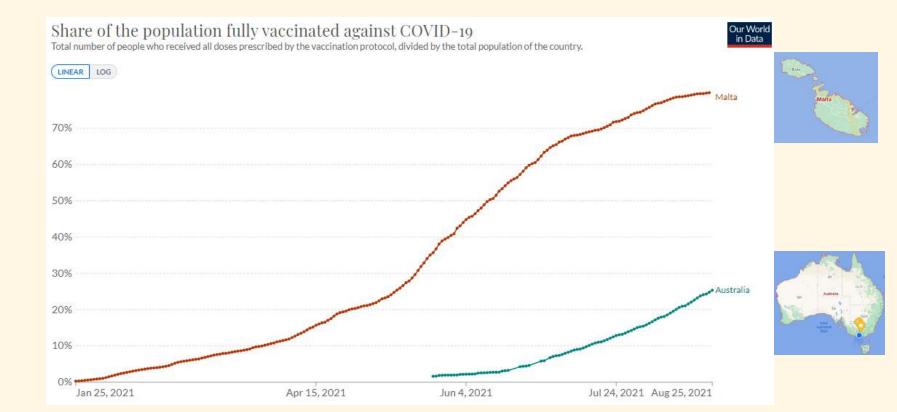
Dr Caroline Bartolo MD, FRACP Infectious Diseases Physician

28<sup>th</sup> August 2021



## What has changed in the last 18 months?

- The name (COVID-19 is the disease, SARS-CoV-2 is the virus)!
- Understanding how the virus works and who is most at risk of infection (older adults with existing medical problems)
- How the virus spread and how to prevent it (airborne social distancing, masks etc)
- Treatments none cure disease, some improve condition (steroids)
- Vaccines! An *additional tool* to public health measures





## COVIDSafe community messaging



Get vaccinated to reduce the chance of serious illness and to protect your community





Isolate at home if you have COVID-19 or are a close contact, to prevent further spread of the virus



Get tested if you have COVID-19 symptoms so that we can find COVID-19 quickly





Wear a mask when required and wash your hands to reduce the spread of COVID-19



Scan QR codes so we can find people exposed to COVID-19 quickly

COVID-19 Vaccination and Testing are free for everyone. You do not need insurance, or a visa, or Medicare card to get it.



## EVEN IF YOU ARE FULLY VACCINATED!

At the first sign of any of these symptoms, get tested then stay home



Fever



Runny nose



Sore throat



Cough





Shortness of breath



Loss of sense of smell or taste

- Everyone aged 16 years and over is eligible
- Young people aged 12 -15 years are eligible if they:
  - have an <u>underlying medical condition</u>.
  - are Aboriginal or Torres Strait Islander

ATAGI recommends that the following groups of children among those aged 12–15 years be prioritised for vaccination using the Comirnaty (Pfizer) vaccine:

- children with specified medical conditions that increase their risk of severe COVID-19 (including severe asthma, diabetes, obesity, cardiac and circulatory congenital anomalies, neuro developmental disorders, epilepsy, immuno-compromised and trisomy 21)
- Aboriginal and Torres Strait Islander children aged 12–15 years
- all children aged 12–15 years in remote communities, as part of broader community outreach vaccination programs that provide vaccines for all ages (≥12 years).

https://www.health.gov.au/news/atagi-statement-regarding-vaccination-of-adolescents-aged-12-15-years

From 9<sup>th</sup> August 2021, the above groups will be eligible to receive vaccination at all vaccination centres and GP clinics.

## Victorian COVID-19 vaccination program

Under 60 years

## Pfizer vaccine preferred

People aged under 60 years who have had the first dose AstraZeneca vaccine can receive second dose.

People aged 18 to 59 years who choose to receive AstraZeneca following individual risk-benefit consideration and informed consent discussion.

### 60 years and over

### Eligible to receive AstraZeneca (Vaxzevria) vaccine

Eligible for second dose of Pfizer vaccine if already received first dose.

Determined by Victorian Specialist Immunisation Service should an individuals' doctor recommend AZ not used.

Only referrals by a clinician are accepted and processed (no self-referrals).

## ATAGI advice on the use of AstraZeneca (Vaxzevria)

### AstraZeneca

- The AstraZeneca vaccine will be offered to adults 60 years and older
- Some state vaccination centres can provide the AstraZeneca vaccine to a dults aged under 60 years for whom Pfizer is not a vailable and the benefits are likely to outweigh the risks
- It is important to make an informed decision and discuss the individual benefit-to-risk with a trusted doctor
- More information: weighing up the potential benefits against risk of harm from COVID-19 vaccine AstraZeneca

### Pfizer

- Pfizer vaccine will be offered to people under 60 years of age
- The Pfizer vaccine will also be offered to all:
  - Healthcare workers
  - Quarantine and border workers
  - Household contacts of hotel quarantine and border workers
  - Residential aged care workers and residential disability care workers and residents 16 or over

To book an appointment at a state vaccination clinic:

Call 1800 675 398 (option 0)

To make an appointment at other participating clinics:

Use the Government's COVID-19 eligibility checker

- In line with ATAGI's recommendations, any person aged 60 years and over will be offered the AstraZeneca COVID-19 vaccine as the preferred vaccine at state vaccination centres.
- The benefits of vaccination with the AstraZeneca vaccine strongly outweigh the risks of adverse effect, including TTS, in those 60 years or older.

https://www.health.gov.au/news/atagi-statement-on-revised-recommendations-on-the-use-of-covid-19-vaccine-astrazeneca-17-june-2021

### Other Vaccines - Novavax and Moderna vaccines

### Novavax

- Provisional determination granted in Australia (not yet approved for use but under review by TGA)
- Type of vaccine Protein based
- Requires two doses
- If approved, 51 million doses are anticipated in the second half of 2021.
  - enough doses to cover Australia's population.

### Moderna

- Approved for use by TGA
- Type of vaccine mRNA
- Requires two doses four weeks apart
- Moderna will supply 25 million doses from late 2021.
  - 10 million doses of their current vaccine, and
  - 15 million doses of booster or variantspecific versions of the vaccine.

## Second doses (Intervals)

#### **AstraZeneca**

- People who have had their first dose of COVID-19 Vaccine AstraZeneca without any serious adverse effects are encouraged to have their second dose as planned
- This includes adults under 60 years of age
- ATAGI advise that each person needs to make an informed decision, based on an understanding of the risks and benefits
- In an outbreak, ATAGI recommends a gap of 4 to 8 weeks between first and second doses of the AstraZeneca vaccine. Where outbreaks are not a threat, people should continue getting second doses 4 to 12 weeks after the first dose

### Pfizer

• The minimum interval for Pfizer COVID-19 vaccine has changed to **six weeks** between first dose and second dose at Victorian state-run vaccination clinics.

## Book your vaccine appointment

Over 50 vaccination centres across Melbourne and regional Victoria

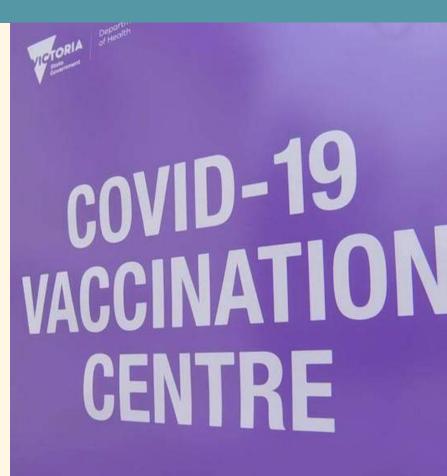
For bookings visit:

portal.cvms.vic.gov.au/ or call 1800 675 398

Participating GPs, GP respiratory clinics, ACCHOs and Pharmacies.

For bookings visit:

www.health.gov.au/resources/apps-and-tools/covid-19-vaccine-eligibility-checker



## Reserved first dose appointments & DLO

To help people who are at higher risk of contracting or getting very sick from COVID-19 get vaccinated, appointments are being reserved at vaccination centres.

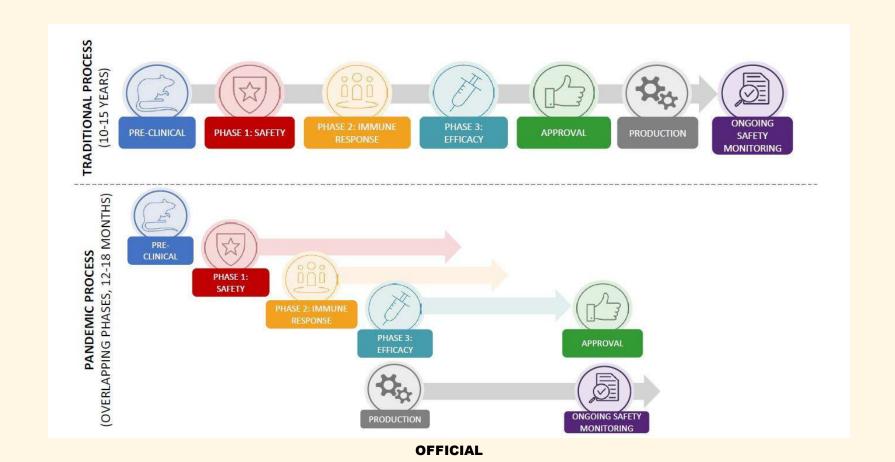
To book a reserved appointment call the Coronavirus Hotline on 1800 675 398

If someone is unable to get vaccinated via their usual support networks, **Disability Liaison**Officers (DLOs) can assist them to make suitable arrangements.

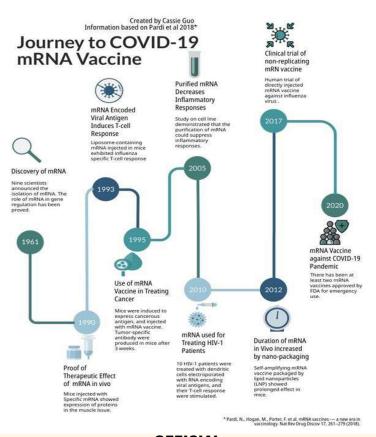
To contact a DLO you can complete an easy online form.

Further information: https://www.coronavirus.vic.gov.au/who-can-get-vaccinated#reserved-pfizer-vaccine-appointments

- •All health care workers
- •Public and private residential aged care and disability care workers and residents
- Hotel quarantine and border workers
- •Household contacts of hotel quarantine and border workers
- •Meat and seafood processing worker and associated cold chain transportation
- •People who are vulnerable and at high risk from COVID-19, including residents of high risk accommodation

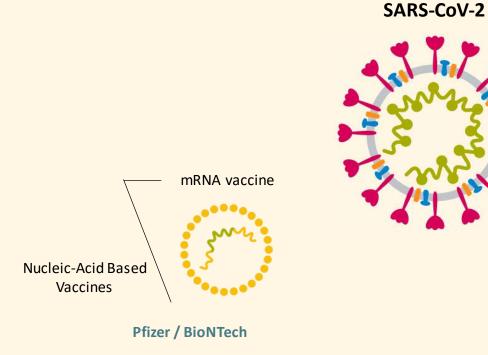


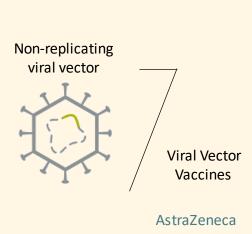
## mRNA vaccine technology development



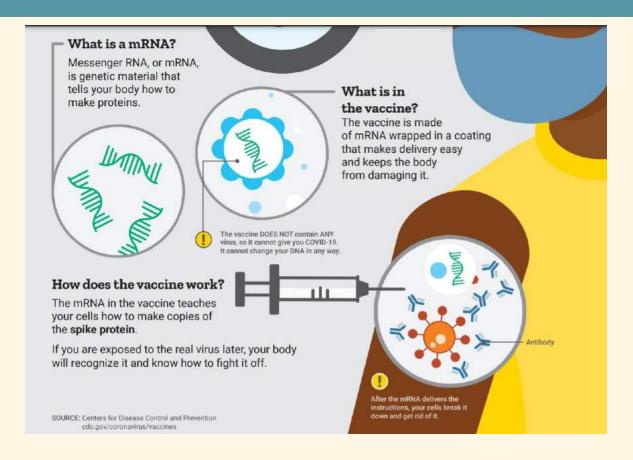
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## COVID-19 (SARS-CoV-2) Vaccine Design Strategies

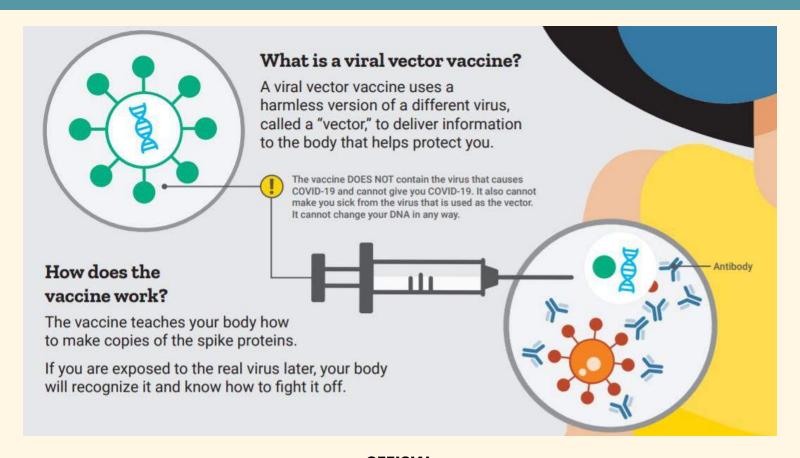




## How does the Pfizer vaccine work?



## How does the AstraZeneca vaccine work?



### Variant of concern: Delta

The **Delta variant** has been found to have an increased transmissibility and secondary attack rate.

- There is an increased risk of hospitalisation associated with the variant.
- The risk of reinfection is increased due to a reduction of neutralising activity reported.
- Both the AstraZeneca and Pfizer vaccines protect against severe disease and hospitalisation, particularly after receiving both doses of vaccines.

There is a **very rare risk** of serious **side effects** that impact your heart – these conditions are called myocarditis or pericarditis and can occur after receiving a **Pfizer COVID-19** vaccine.

Myocarditis is the inflammation of the heart muscle, and pericarditis is the inflammation of the thin sac that surrounds the heart.

Most people who have experienced these heart conditions following vaccination with Pfizer have required hospitalisation however they have responded well to standard treatment. Patients have recovered quickly with treatment.

After your Pfizer vaccine you need to watch for the following symptoms in the days (typically 1-5 days) following your vaccine:

chest pain, pressure or discomfort

shortness of breath

 irregular heartbeat, skipped beats or 'fluttering' pain with breathing

If you experience the symptoms you should immediately seek medical attention. You need to tell the doctor you see that you have recently had a Pfizer COVID-19 vaccine.

When diagnosed early there are effective treatments available and many people recover without long term impacts.

## Vaccine safety for women

Planning pregnancy: <u>No evidence of increased risk of pregnancy complications</u> in women who become pregnant after vaccination. COVID-19 vaccines have no effect on fertility.

Breastfeeding: It is <u>safe to continue breastfeeding</u> before or after COVID-19 vaccination. No evidence of any side effects or any harm to the woman or her infant.

Currently pregnant: Royal Australian New Zealand College of Obstetricians and Gynaecologists and ATAGI recommend that <u>pregnant women are routinely offered Pfizer vaccine at any stage of pregnancy</u>. There are no safety concerns for the woman or her baby and helps protect against the risk of COVID-19 infection to protect both the woman and her baby.

## What are the risks of COVID-19 in pregnancy?

Pregnant women with COVID-19 have a higher risk of certain complications compared to nonpregnant women with COVID-19 of the same age, including:

- An increased risk (about 5 times higher) of needing admission to hospital.
- An increased risk (about 2-3 times higher) of needing admission to an intensive care unit.
- An increased risk (about 3 times higher) of needing invasive ventilation (breathing life support).

### COVID-19 during pregnancy also increases the risk of complications for the newborn, including:

- A slightly increased risk (about 1.5 times higher) of being born prematurely (before 37 weeks of pregnancy).
- An increased risk (about 3 times higher) of needing admission to a hospital newborn care unit.

## Pregnancy and vaccination

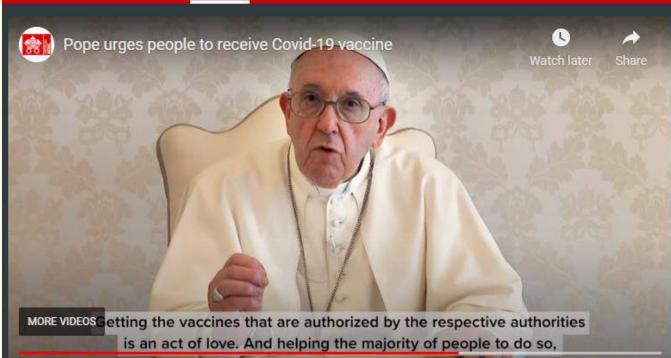
- Pregnant women should be routinely offered Pfizer at any stage of pregnancy.
- Women who are trying to become pregnant do not need to delay vaccination or avoid becoming pregnant after vaccination.
- Real-world evidence has shown that Pfizer is safe for pregnant women and breastfeeding women.
- Women who received their first dose of AstraZeneca vaccine and are pregnant can receive a second dose of either AstraZeneca or Pfizer vaccine, although Pfizer vaccine is preferred.
- COVID-19 vaccination may provide indirect protection to babies by transferring antibodies through the placenta (for pregnant women) or through breastmilk (for breastfeeding women).

COVID-19 vaccines are Halal (Australian Fatwa Council)

COVID-19 vaccination supported by a huge range of faiths and religious leaders globally

COVID-19 vaccines do not contain any human or animal tissue or cells derived from human or animal tissue

### POPE VATICAN CHURCH WORLD

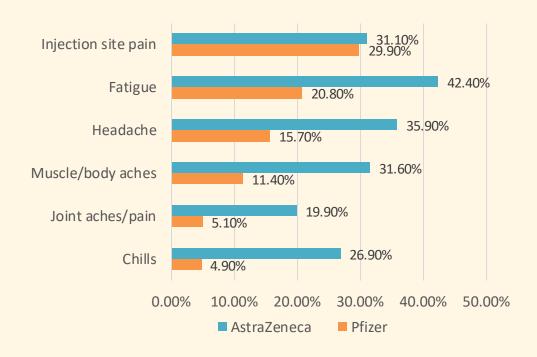


is an act of love. Love for oneself, love for our families and friends,

Getting vaccinated is a simple yet profound way to care for one another, especially the most vulnerable.

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### COVID-19 vaccine side effects – first dose





Source: National Centre for Immunisation Research and Surveillance, 'COVID-19 Vaccines | Ausvaxsafety' (Ausvaxsafety.org.au, 2021) <a href="https://www.ausvaxsafety.org.au/safety-data/covid-19-vaccines">https://www.ausvaxsafety.org.au/safety-data/covid-19-vaccines</a> accessed 24 August 2021.

### Resources

### Resources developed by the <u>Victorian Department of Health</u>:

- Translated resources
- Subscribe to receive COVID-19 Vaccine Project Updates
- During the vaccine rollout it is critical we all continue to be **COVIDSafe**. Find out where to get tested.

### Resources developed by the <u>Australian Government Department of Health</u>:

- Easy-read resources
- COVID-19 vaccine information in your language
- COVID-19 vaccine campaign resources
- COVID-19 vaccination decision guide for women who are pregnant, breastfeeding, or planning pregnancy
- ATAGI statement on revised recommendations on the use of COVID-19 Vaccine AstraZeneca (17 June 2021)
- ATAGI statement regarding vaccination of adolescents aged 12–15 years (2 August 2021)
- COVID-19 vaccination Guidance on Myocarditis and Pericarditis after mRNA COVID-19 vaccines (30 July 2021)
- Multilingual consumer factsheet about AstraZeneca vaccine / Multilingual consumer factsheet about Pfizer vaccine

#### Accurate and evidence-based answers to common questions

- https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/is-it-true
- https://www.health.gov.au/resources/publication/covid-19-vaccines-common-questions-other-languages

#### Other resources:

- National Centre for Immunisation Research and Surveillance COVID-19 vaccines: Frequently asked questions
- Therapeutic Goods Administration (TGA) COVID-19 vaccine: Information for consumers and health professionals
- Australian Society of Clinical Immunology and Allergy <a href="www.allergy.org.au/patients/ascia-covid-19-vaccination-faq">www.allergy.org.au/patients/ascia-covid-19-vaccination-faq</a>
- Melbourne Vaccine Education Centre mvec.mcri.edu.au/references/covid-19-vaccines-frequently-asked-questions/
- Services Australia How to get an Individual Health Identifier

Nearly 4 billion doses of COVID-19 vaccines already given

Vaccine safety is constantly being monitored

Safety issues are rare

Talk to your GP or trusted health professional if you have personal questions

Information about pandemic conditions may continue to change

Media headlines may be misleading

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# Thank you

www.coronavirus.vic.gov.au/vaccine

COVIDvaccination@health.vic.gov.au



