National Immunisation Advisory Committee

RECOMMENDATIONS FOR THE COVID-19 VACCINATION PROGRAMME
FOR THOSE AGED 65-69 YEARS

NIAC | 23.02.2021

Request for advice of the National Immunisation Advisory Committee from the Deputy Chief Medical Officer

On 12 February 2021, following previous advice from the National Immunisation Advisory Committee (NIAC) regarding the use of the COVID-19 Vaccines in older people, the Committee was asked by the Deputy Chief Medical Officer to "*consider any additional evidence which may have become available in the interim and, in particular, provide advice* ***in respect of the use of COVID-19 Vaccine AstraZeneca in those aged 65-69 years***"

Evidence summary

The risk of a severe outcome from COVID-19 is correlated with increasing age. All three authorised vaccines are very effective in preventing hospitalisations and severe COVID-19 disease, which is the primary aim of the vaccination programme. Overall efficacy in preventing all PCR positive symptomatic COVID-19 is higher in the mRNA COVID-19 vaccines (COVID-19 Vaccine Moderna®, Comirnaty® BioNTech/Pfizer) than in the authorised viral vector COVID-19 Vaccine Astra Zeneca®.

The European Medicines Agency authorised the COVID-19 Vaccine AstraZeneca® for use in all adults aged 18 years and older, including those aged 65 and older. The overall efficacy was reported as 59.5% but there were insufficient clinical data in those aged 55 and older to allow reliable calculation of efficacy. However, as a similar immune response was shown in all age groups, including those 65 years and older, it is expected that the COVID-19 Vaccine AstraZeneca® will be effective in this age group.

On 10 February 2021, the World Health Organization (WHO) Strategic Advisory Group of Experts (SAGE), included additional data in their review. They reported the overall efficacy of COVID-19 Vaccine AstraZeneca® at 63.1%. Only 9.8% of the trial participants were aged 65 and older. There were very few cases of COVID-19 disease in either the vaccinated or control arms of the studies, likely due to cocooning. In this age group (aged 65 and older), there were four cases of COVID-19 disease who were vaccinated compared with eight in the control group and no cases of COVID-19 hospitalisation, severe disease, or death in those who received the vaccine.

Although the group was too small to assess protection based on the efficacy data alone, the immunogenicity data did not differ by age cohort, therefore it is anticipated that the COVID-19 Vaccine AstraZeneca® will be effective in this age group. Taking all available evidence into account, WHO recommends COVID-19 Vaccine AstraZeneca® for use in persons aged 65 years and older.

Table 1. Efficacy of authorised vaccines overall and in age 65 and older (updated to include SAGE data)

	Comirnaty® BioNTech/Pfizer	**COVID-19 Vaccine Moderna®**	**COVID-19 Vaccine Astra Zeneca®**
Vaccine efficacy overall	95%	94.1%	63.1%
Vaccine efficacy vs severe disease (all enrolled) (vaccinated vs control)	88.9% (1 v 9)	100% (0 vs 11)	100% (0 vs 3)
Age ≥65 No. vaccinated in Phase III trials	3848	3527	703
Age ≥65 Efficacy against PCR positive symptomatic COVID-19 disease (vaccinated vs control)	94.7% (1 vs 19)	100% (0 vs 15)	EMA: "Data do not allow an estimate of vaccine efficacy in those aged 55 and older" SAGE WHO: 51.91% (4 vs 8)

The COVID-19 Vaccine AstraZeneca® two-dose schedule is licensed for administration at an interval of 4-12 weeks. The SAGE report states that two-dose efficacy and immunogenicity increase with a longer inter dose interval. Further evidence from a Phase III trial shows efficacy of up to 76% following a first dose, with protection maintained to up to at least 12 weeks. SAGE recommends an interval of 8-12 weeks between the doses for all age groups.

The NIAC deliberations on optimal use of authorised vaccines for those aged 65-69 considered disease risk, overall vaccine safety, immunogenicity and efficacy, age-specific vaccine data, and likely time to protection. The potential impact on confidence and trust in the vaccination programme was also discussed, and regard was taken of the ethical principles of equity, fairness and minimising harm.

There is an urgency to protect those aged 65-69 who are at risk of a severe outcome.

All three vaccines are effective, in all age groups, against COVID-19 hospitalisations, severe disease and death. NIAC recognises that **the best vaccine anyone can receive at this time is the vaccine that can be soonest administered**. Everyone is strongly urged to accept whichever vaccine is available.

As outlined in the COVID-19 Vaccine Allocation Strategy, those aged 65-69 years with medical conditions that put them at high risk of severe COVID-19 disease should be vaccinated first. This high-risk group includes some specific conditions which may be associated with a suboptimal response to vaccines, e.g., chronic kidney disease or immunocompromise (see Table 2). Results from efficacy studies suggest that the mRNA vaccines might induce protective immunity more reliably than COVID-19 Vaccine AstraZeneca®. Use of these vaccines might therefore be preferable for patients who are immunocompromised. **However, if preferential selection of an mRNA vaccine will result in delayed vaccination for more than 3 weeks, any benefit of using a higher efficacy vaccine may be lost.**

Table 2 – Medical conditions associated with a suboptimal immune response to vaccination

Cancer	All cancer patients actively receiving (and/or within 6 weeks of receiving) systemic therapy with cytotoxic chemotherapy, targeted therapy, monoclonal antibodies or immunotherapies and radical surgery or radiotherapy for lung or head and neck cancer All patients with advanced/metastatic cancers
Chronic kidney disease	Chronic kidney disease with eGFR <30ml/min
Immunocompromise	Severe immunocompromise due to disease or treatment e.g. Persons living with HIV Genetic diseases: - APECED* - Inborn errors in the interferon pathway Transplantation: - Listed for solid organ or haematopoietic stem cell transplant (HSCT) - Post solid organ transplant at any time - Post HSCT within 12 months Treatment: - Cyclophosphamide, Rituximab, Alemtuzumab, Cladribine or Ocrelizumab in the last 6 months- High dose systemic steroids (as defined in Immunisation Guidelines for Ireland Chapter 3)

*APECED - autoimmune polyendocrinopathy candidiasis ectodermal dystrophy

Recommendations

Recommendation 1

Any currently authorised COVID-19 vaccine can be given to adults of all ages, including those aged 65-69 years

Recommendation 2

Vaccination of those aged 65-69 years should be prioritised in the following order:

A) Those with a medical condition associated with high risk for severe COVID-19 disease

B) All others

Recommendation 3

Where practicable and timely, those aged 65-69 years with conditions that may limit COVID-19 vaccine immune response should be given an mRNA vaccine

Recommendation 4

The two-dose COVID-19 Vaccine AstraZeneca® schedule should be administered at an interval of 8 - 12 weeks. (Please note this is an update on previous recommendations)

These recommendations are based on current data and are subject to ongoing review

References

1. AstraZeneca COVID 19 Vaccine (ACIP COVID 19 Emergency Meeting January 27, 2021) https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-01/02-COVID-Villafana.pdf

2. COVID-19 Vaccine AstraZeneca Product Information as approved by the CHMP on 29 January 2021, pending endorsement by the European Commission https://www.ema.europa.eu/en/documents/product-information/covid-19-vaccine-astrazeneca-product-information-approved-chmp-29-january-2021-pending-endorsement_en.pdf

3. World Health Organization. Interim recommendations for use of the AZD1222 (ChAdOx1-S [recombinant]) vaccine against COVID19 developed by Oxford University and AstraZeneca https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccines-SAGE_recommendation-AZD1222-2021.1

4. World Health Organization 2021. AZD1222 vaccine against COVID-19 developed by Oxford University and Astra Zeneca: Background paper Strategic Advisory Group of Experts (SAGE) on Immunization Working Group on COVID-19 vaccines 10 February 2021 https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccines-SAGE_recommendation-AZD1222-background-2021.1

5. National Immunisation Advisory Committee Royal College of Physicians of Ireland 2021. Recommendations for the use of COVID-19 Vaccine AstraZeneca https://rcpi-live-cdn.s3.amazonaws.com/wp-content/uploads/2021/02/NIAC-Recommendations-to-CMO-Re-AZD.pdf

6. Voysey, M et al. (2021) Oxford COVID Vaccine Trial, Single Dose Administration, And The Influence Of The Timing Of The Booster Dose On Immunogenicity and Efficacy Of ChAdOx1 nCoV-19 (AZD1222) Vaccine. Available at SSRN: https://ssrn.com/abstract=3777268 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3777268