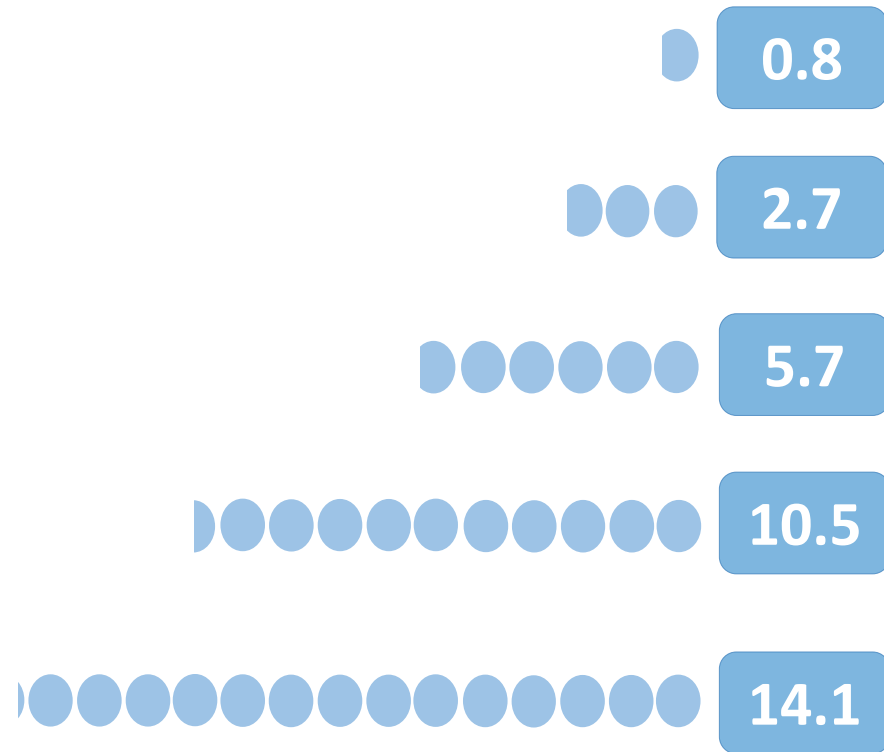


Communicating the potential benefits and harms of the Astra-Zeneca COVID-19 vaccine

Weighing up the potential benefits and harms of the Astra-Zeneca COVID-19 vaccine

Potential benefits

ICU admissions due to COVID-19 prevented every 16 weeks:



**For 100,000 people
with low exposure risk***

Potential harms

Serious harms due to the vaccine:

Age group

20-29yr

1.1

30-39yr

0.8

40-49yr

0.5

50-59yr

0.4

60-69yr

0.2

* Based on coronavirus incidence of 2 per 10,000: roughly UK in March

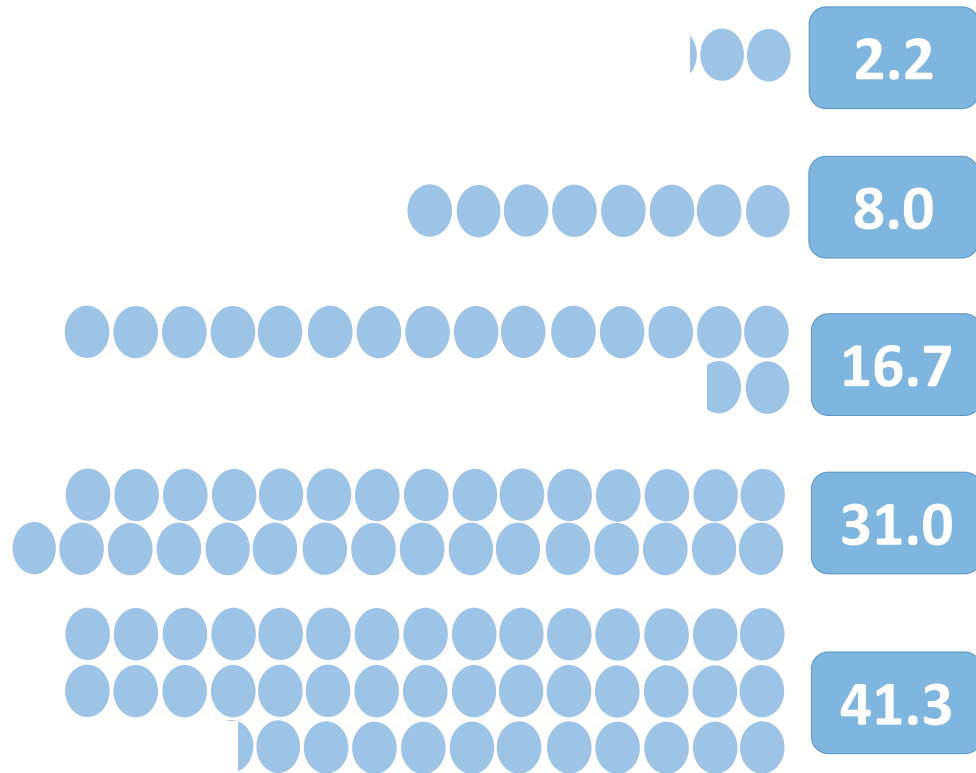
Weighing up the potential benefits and harms of the Astra-Zeneca COVID-19 vaccine

**For 100,000 people
with medium exposure risk***

Potential benefits

Potential harms

ICU admissions due to COVID-19 prevented
every 16 weeks:



Age group

Serious harms due to the vaccine:

20-29yr

1.1

30-39yr

0.8

40-49yr

0.5

50-59yr

0.4

60-69yr

0.2

* Based on coronavirus incidence of 6 per 10,000: roughly UK in February

Weighing up the potential benefits and harms of the Astra-Zeneca COVID-19 vaccine

Potential benefits

**For 100,000 people
with high exposure risk***

Potential harms

ICU admissions due to COVID-19 prevented
every 16 weeks:

Age group

Serious harms due to the vaccine:



6.9

20-29yr

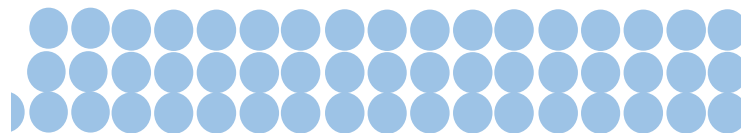
1.1



24.9

30-39yr

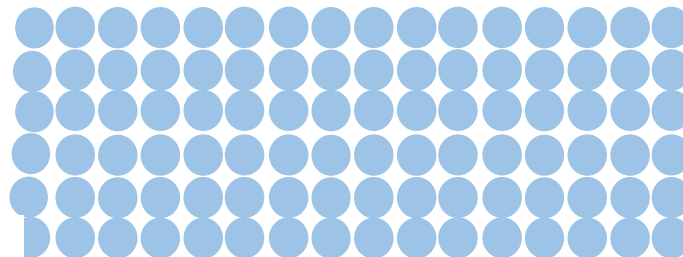
0.8



51.5

40-49yr

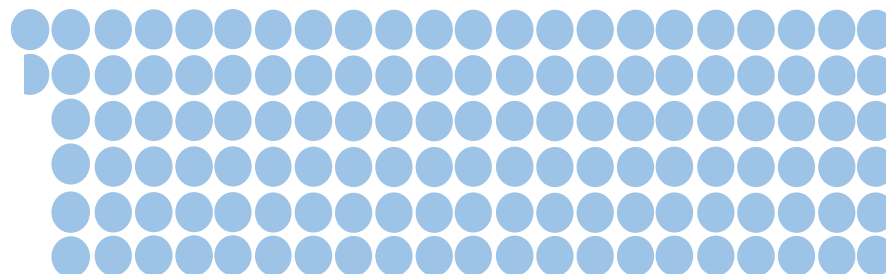
0.5



95.6

50-59yr

0.4



127.7

60-69yr

0.2



* Based on coronavirus incidence of 20 per 10,000: roughly UK at peak of second wave

Statistical Notes and Data Sources

Potential benefits:

- Incidence rates were based on the Covid-19 Infection Survey, ONS, 1 April 2021.
- The proportion of hospitalisations in a cohort was calculated using the estimates of COVID-19 hospitalisation rates associated with the 10-year age cohorts studied. These estimates were taken from Table 1 of the 29 July 2020 report of the Scientific Pandemic Influenza Group on Modelling, Operational sub-group (SPI-M-O).
- The proportion of ICU cases to hospitalisations was calculated using the PHE Benefit Estimation for COVID-19 Report from 3 April 2021. The 10-year age cohorts were determined by weighted averages if not directly available.
- A fixed vaccine efficacy of 80% for all age groups for ICU reduction was used.

Potential harms:

- Very few cases of severe allergic reaction (anaphylaxis) have been reported for the Astra-Zeneca vaccine in the UK – too few to illustrate. This may be because precautions have been taken to protect those likely to suffer such a reaction. The harms illustrated are therefore only the blood clots.
- Numbers of cases of the blood clot reactions provided by MHRA up to March 31st in five-year age-bands. Observed rates smoothed using a Poisson regression on age, with log-link.