oxford vaccine group

JENNER VACCINE TRIALS
NUFFIELD DEPARTMENT OF MEDICINE

COVID-19 Oxford Vaccine Trial

UNIVERSITY OF OXFORD

Transmission

NIHR | National Institute for Health Research

UK Research and Innovation

CEPI

AstraZeneca

Contribution to transmission

Hospitalised

Mild symptomatic

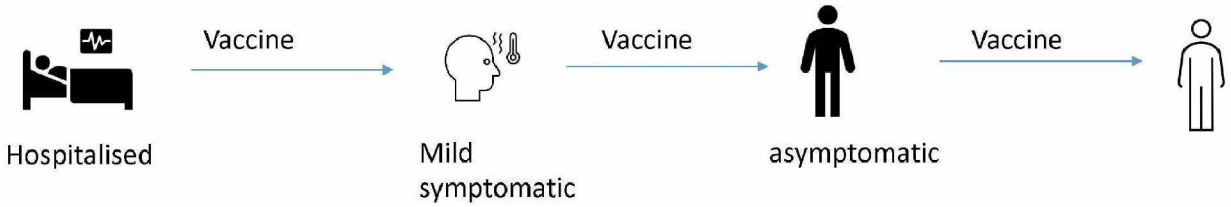
asymptomatic

Healthy

~70% of cases

~30% of cases

Contribution to transmission



~70% of cases

~30% of cases

Swabbing of symptomatic cases

Weekly swabbing in UK trial

Vaccine efficacy

Hospitalised

Vaccine →

~100% in RCTs
80-94% in real world effectiveness studies >70 years of age

Study	Design	VE Ox-AZ
U Oxford	18 year+ RCT	~100%
U Edinburgh	TNCC >80 years	94% (73 to 99)
PHE	>70 years	80%
Bristol	TNCC >80 years	80.4 (36.4-94.5)

Vaccine efficacy after first dose

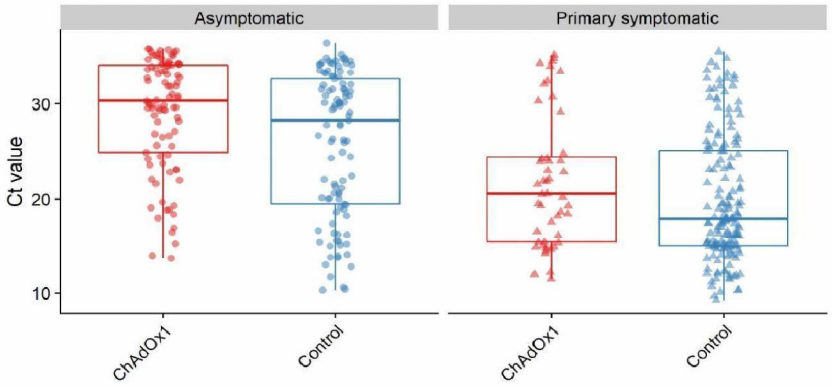
Mild symptomatic

Vaccine →

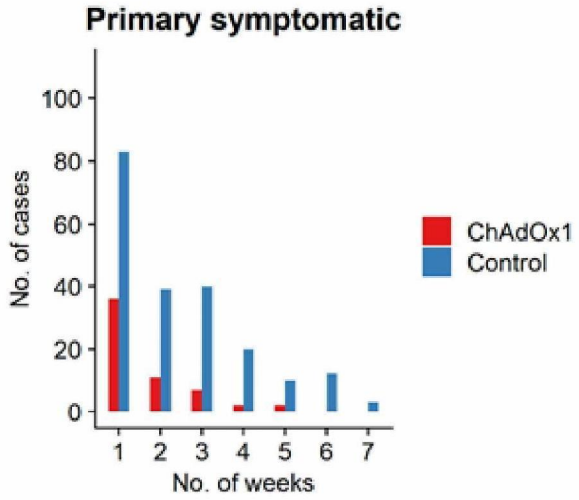
~76% in RCTs

Symptomatic COVID-19 Cases > 21 days after a single SD dose	Vaccine Efficacy (95% CI)
Time since first standard dose	
22 to 90 days (>18 yeasr)	76% (59%, 86%)

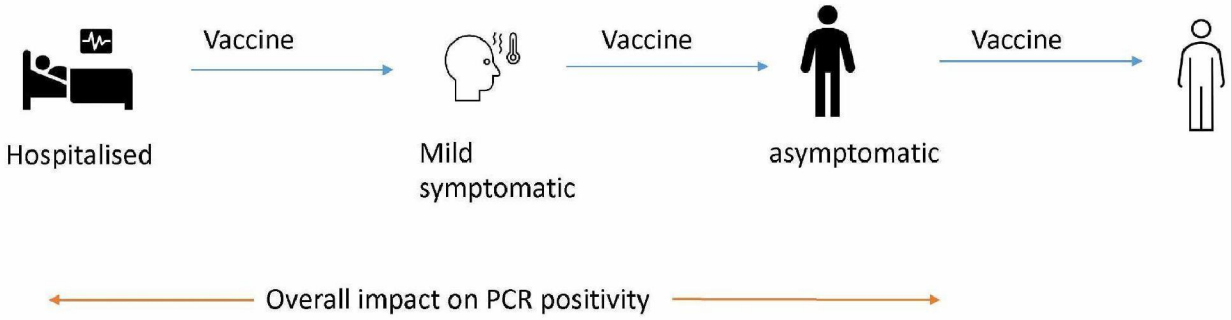
Reduced viral load in those who are PCR positive despite vaccination



Reduced duration of shedding in those who are PCR positive despite vaccination

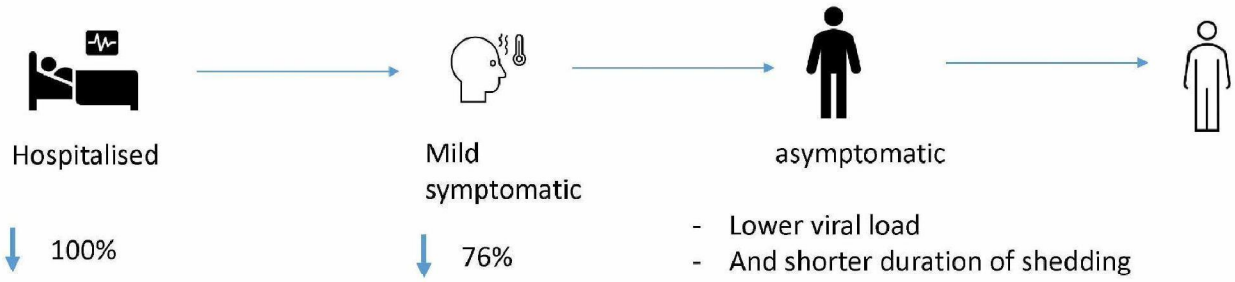


Impact on transmission must take account of all components and can only be assessed with regular swabbing to capture asymptomatic cases



Surrogate for reduction in transmission after first dose

Asymptomatic COVID-19 infections > 21 days after a single SD dose	N cases	ChAdOx1 nCoV-19	Control	Vaccine Efficacy (95% CI)
Time since first dose				
22 to 90 days	121	32/9257 (0.3%)	89/9237 (1.0%)	63.9% (46.0%, 75.9%)



Transmission

- Likely substantial impact from all authorised vaccines against transmission if widespread immunisation adopted
- Variants = mutations that allow ongoing transmission
- Variants - Not expected to have significant escape from binding antibody or t cell responses
- Variants - Evidence so far that vaccines will continue to protect against severe disease

Post-infection

In immune populations, variants will evade immunity in the upper respiratory tract to allow ongoing transmission