Indicator	Red, amber or green status*	Confidence level	Assessment and rationale As Omicron (BA.1) was the previous dominant variant in the UK this risk assessment uses the characteristics of BA.1 as the baseline (for example, amber indicates equivalence to BA.1).
Overall growth advantage	**Red**	**High**	**BA.2 is dominant in England** The growth advantage of BA.2 compared to BA.1 is visible in multiple countries with genomic surveillance. The growth advantage in England has stabilised and remains substantial.
Growth advantage 1: Transmissibility	**Red**	**High**	**It is likely that the transmission characteristics of BA.2 contribute to its growth advantage** Preliminary laboratory data suggests an increase in ACE2 binding affinity for the BA.2 receptor binding domain compared to BA.1, which may influence transmissibility. Secondary attack rates are higher for BA.2 than BA.1, including in a preliminary analysis which adjusts for vaccination of cases and contacts. A shorter serial interval is also seen through analysis of contact tracing data.
Growth advantage 2: Immune evasion	**Amber**	**High**	**Antigenic change between BA.1 and BA.2 is not likely to be the major cause of growth advantage** Neutralisation data from UK and international laboratories suggests a small antigenic distance between BA.1 and BA.2. Sera from vaccinated and boosted individuals neutralise both variants similarly, and based on routine testing data, vaccine effectiveness appears similar between BA.1 and BA.2, both for symptomatic disease and hospitalisation. Overall, Omicron lineages are antigenically distant from previous variants and there have been substantial numbers of reinfections throughout the Omicron wave. In the current UK context, the effect of BA.2's antigenic properties on the overall reinfection rate is difficult to distinguish from the effect of the force of infection in the community. A small number of sequence-confirmed reinfections with BA.2 following BA.1 have been identified which are predominantly in unvaccinated individuals. Neutralisation studies also find that protection against BA.2 after BA.1 infection is maintained in previously vaccinated individuals but is lower in those for whom BA.1 is the first exposure to SARS-CoV-2.
Infection severity	**Amber**	**High**	**BA.2 does not appear to be more severe than BA.1** In preliminary animal data from the UK using SARS-CoV-2 BA.2 virus, there was no evidence of increased virulence for BA.2 compared to BA.1, although international data based on chimeric virus studies is noted. There is no evidence of an increase in hospital attendance or admission for BA.2 compared to BA.1 in England.

* Refer to scale and confidence grading slide.