

Indicator	Red, amber, or green status*	Confidence level	Assessment and rationale
Growth advantage	Red	High	<p>Omicron is the dominant circulating variant</p> <p>Omicron displayed a pronounced growth advantage in the UK and rapidly rose to dominance. This growth advantage is also apparent in other countries with equivalent surveillance. We have high confidence that immune evasion is a substantial contributor to the growth advantage, but the very high growth rate and laboratory findings raise the possibility that other properties may also be contributing.</p>
Transmissibility	Amber	Low	<p>Omicron is at least as transmissible as Delta</p> <p>Increased transmissibility compared to Delta is biologically plausible. There are extensive changes to the receptor binding domain and other regions of spike, and increased ACE2 binding is measured in some assays. Several studies find that Omicron can use the endosomal pathway as an additional cell entry pathway although the clinical significance of this is unclear. There is evidence for increased replication of Omicron over Delta in upper airway cells in vitro. Generation time and transmissibility as distinct properties of Omicron still require further confirmatory analysis.</p>
Immune evasion (including natural and vaccine derived immunity)	Red	High	<p>Omicron displays substantial immune evasion properties in the current population context</p> <p>Neutralisation data, real world vaccine effectiveness against symptomatic disease, and reinfection rate all confirm substantial immune evasion properties. Whilst vaccine effectiveness (VE) is lower for Omicron than Delta after 2 doses of vaccine, boosting returns it to a higher level. Early data on hospitalisations following confirmed symptomatic infection indicates the VE against hospitalisation is high after 3 doses. Waning of vaccine effectiveness against symptomatic infection occurs more rapidly with Omicron than Delta. Further data is required to assess the duration of protection against hospitalisation.</p>
Infection severity (adults)	Green	High	<p>Reduction in the relative risk of hospitalisation</p> <p>Multiple laboratory studies indicate considerable change in phenotype including changes in cell entry and fusogenesis, although these cannot be directly correlated to virulence. Preliminary animal studies are consistent with reduced virulence. Iterated UK analyses (more than one study) find a reduction in the relative risk of hospitalisation for adult Omicron cases compared to Delta. This is consistent with data from South Africa.</p> <p>Available data suggests that the observed reduction in risk of hospitalisation in adults is likely to be partly a reduction in intrinsic severity of the virus and partly to protection provided by prior infection.</p>
Infection severity (children)	Amber	Low	<p>Insufficient data</p> <p>Increased numbers of hospital admissions in young children are reported in the UK and some other countries although early data suggests that admitted children are not severely unwell. Further analyses are required to compare the risk of hospitalisation between Omicron and Delta, and to assess the clinical nature of the illness in children.</p>

* Refer to scale and confidence grading slide.