## Risk assessment framework for SARS-CoV-2 variants

### Confidence grading

**Low**
- Little or poor-quality evidence, uncertainty or conflicting views amongst experts, no experience with previous similar incidents.

**Moderate**
- Adequate quality evidence - including consistent results published only in grey literature, reliable source(s), assumptions made on analogy and agreement between experts or opinion of at least 2 trusted experts.

**High**
- Good quality evidence, multiple reliable sources, verified, expert opinion concurs, experience of previous similar incidents.

### Indicator | Risk assessment framework
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Zoonotic emergence and transmission to humans | Animal reservoir identified but no evidence of transmission from animals to humans
| Sporadic transmission from animals to humans | Frequent transmission from animals to humans

Transmissibility between humans | No demonstrated person to person transmission
| Limited human case clusters | Established human to human transmission, which appears similar to wild type virus
| Transmissibility appears greater than the wild type virus

Infection severity | Evidence of less severe clinical picture or lower infection fatality than from wild type SARS-CoV-2 infections
| Similar clinical picture and infection fatality to wild type SARS-CoV-2 infections OR experimental animal data suggesting potential for increased disease severity humans
| More severe clinical picture or higher infection fatality than from wild type SARS-CoV-2 infections (limited to specific risk groups)
| More severe clinical picture or higher infection fatality than from wild type SARS-CoV-2 infections

Immunity after natural infection | Evidence of no antigenic difference from other circulating wild type virus and/or evidence of no increase in reinfection rate
| Structural data suggesting antigenic difference from other circulating wild type virus
| Experimental evidence of functional evasion of naturally acquired immunity
| Evidence of frequent infection in humans with known prior infection with earlier virus variant.

Vaccines | Evidence of no structural or antigenic difference in vaccine targets and/or evidence that vaccine performance is preserved
| Structural data suggesting difference in vaccine target epitopes
| Experimental evidence of functional evasion of vaccine derived immunity
| Evidence of frequent vaccine failure or decreased effectiveness in humans

Drugs and therapeutics | Evidence of no structural or antigenic difference in therapeutic targets
| Structural data suggesting difference in therapeutic target epitopes
| Experimental evidence of reduced drug susceptibility
| Evidence of frequent drug or therapeutic failure or decreased effectiveness in humans