ECDC SARS-CoV-2 variant classification criteria and recommended EU/EEA Member State actions – 29 June 2023

- Variant classification serves as an important communication tool for alerting EU/EEA countries about the emergence of SARS-CoV-2 variants with concerning properties likely to impact the epidemiological situation in the EU/EEA.
- ECDC routinely monitors for emerging variants, providing a weekly update on variant classifications in the publicly available Communicable Disease Threat Report and on our variant web page.

Variant classification criteria

ECDC criteria as of 29/06/2023	**VUM**	**VOI**	**VOC**
Genetic changes predicted/known to impact virus characteristics: transmissibility, virulence, immune evasion, therapeutics, detectability Strength of evidence	**Yes** **(Weak)**	**Yes** **(Low-Mod)**	**Yes** **(Mod-High)**
Predicted growth advantage in the EU/EEA	**Yes**	**Yes**	**Yes**
Predicted EU/EEA epi impact (increases in cases or other measure)	**Unclear**	**Possible**	**Likely**
ECDC risk assessment to be undertaken	**No**	**Yes**	**Yes**
Risk assessment confirms with moderate/high certainty *any* of - increased severity - risk of healthcare system compromise - reduced vaccine effectiveness	**N/A**	**No**	**Yes**

Recommended EU/EEA Member State actions

Variants under monitoring (VUM)

ECDC actions

1. Monitor global and EU/EEA epidemiology, with EU/EEA data refreshed weekly in the ECDC Country overview report.
2. Evaluate available virus characterisation data.

EU/EEA Member State actions

1. Undertake representative genomic surveillance as per ECDC guidance.
2. Timely submission of complete genome sequences and associated metadata to GISAID and/or TESSy.

Variants of interest (VOI)

ECDC actions

1. Monitor global and EU/EEA epidemiology, with EU/EEA data refreshed weekly in the ECDC Country overview report.
2. Evaluate available virus characterisation data.
3. Establish a variant-specific EpiPulse Event to facilitate sharing of epidemiological and antigenic characterisation data by Member States.
4. Complete a risk assessment to determine if evidence of moderate/high certainty for increased severity, risk of healthcare system compromise or reduced vaccine effectiveness is available for the VOI.

EU/EEA Member State actions

1. Undertake representative genomic surveillance as per ECDC guidance.
2. Timely submission of complete genome sequences and associated metadata to GISAID and/or TESSy.
3. Undertake antigenic characterisation locally (if possible) or alternatively share specimens with the ECDC-funded AURORAE laboratory network.
4. Undertake epidemiological investigations to assess the impact of the VOI in terms of severity, healthcare system impact, and the effectiveness of public health interventions.
5. Report epidemiological and antigenic characterisation data to ECDC via EpiPulse.

Variants of concern (VOC)

ECDC actions

1. Monitor global and EU/EEA epidemiology, with EU/EEA data refreshed weekly in the ECDC Country overview report.
2. Evaluate available virus characterisation data.
3. Establish a variant-specific EpiPulse Event to facilitate sharing of epidemiological and antigenic characterisation data by Member States.
4. Complete a risk assessment communicating the risk to the EU/EEA and options for response.

EU/EEA Member State actions

1. Undertake representative genomic surveillance as per ECDC guidance.
2. Timely submission of complete genome sequences and associated metadata to GISAID and/or TESSy
3. Undertake antigenic characterisation locally (if possible) or alternatively share specimens with the ECDC-funded AURORAE laboratory network.
4. Undertake investigations to assess the epidemiological impact of the VOC in terms of severity, healthcare system impact, and the effectiveness of public health interventions.
5. Report epidemiological and antigenic characterisation data to ECDC via EpiPulse.