

# NEWSLETTER

## AURORAE User Feedback Survey 2024

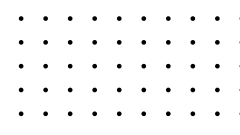
AURORAE provides laboratory support for surveillance, preparedness and response to SARS-CoV-2 and influenza virus and strengthens the capacity for genomic epidemiology and public health bioinformatics through interdisciplinary training and external quality assessments, which is crucial for response during pandemic or unexpected major public health events.

A survey was recently conducted to better understand the experiences and needs of professionals in EU/EEA Member States, the Western Balkans, and the Republic of Türkiye regarding the support services provided by the

laboratory method documents available from the ECDC website. Eleven responses from 11 countries were recorded from EU/EEA and Western Balkan countries. AURORAE wants to thank all respondents for their contribution to this survey. Despite the relatively low response rate overall, their survey feedback provides important insights for the AURORAE initiative. The survey questions aimed to provide insight in three main topics: (i) Technology Support, (ii) Characterization Services, and (iii) Handbooks & Protocols. Detailed results of the survey are available on the last two pages of this newsletter.

## Technology Support (implementation, optimization, and validation of tests)

This part of the survey focused on the technology support services offered by AURORAE. Eighty-two percent of respondents indicated that they need technical support for implementation and optimization of diagnostic assays, virus characterization assays, analyzing antibody titers, and antiviral susceptibility testing, for influenza virus and SARS-CoV-2. The need for support for validation of assays varied by subject (validation of protocols or assays, requirement of protocols and reagents, confirmatory testing, and training by AURORAE labs), and ranged from 36% – 82% of respondents answering positive. Support by providing protocols and reagents for validation purposes were most frequently indicated as of interest (73% and 82%, respectively). Additionally, more than half of respondents indicated that one-to-one training either online, by phone, or via email (55%), or in an AURORAE lab (55%) will be useful. The open fields for comments and suggestions reflected the above-mentioned outcomes that AURORAE can play a pivotal role in providing reagents and reference materials as well as provide consultancy and support by experts included in AURORAE consortium. One respondent mentioned expanding AURORAE technology support services to other viruses like RSV, rhinovirus, and Mpox virus. Inclusion of RSV services is currently under discussion in AURORAE. Mpox virus is covered by EURL for emerging, rodent-borne and zoonotic viral pathogens.



## Characterization Services

AURORAE offers virus characterization services for SARS-CoV-2 and influenza viruses. Seventy-three and 64% of respondents answered positively on the question if they wish to use characterization services for the purpose of (full genome) sequencing and antigenic characterization of SARS-CoV-2 clinical specimens, respectively. The same questions for SARS-CoV-2 virus isolates were answered positively by 9% and 18% of respondents. It is possible that the lower need for characterization of virus isolates is because virus isolation may not be a routine procedure in these laboratories. Based on feedback from respondents, influenza virus characterization services are valued less than for SARS-CoV-2: none of the respondents wishes to use AURORAE services for the antigenic characterization of influenza virus isolates and only 9% showed an interest in influenza virus (full genome) sequencing services. This difference is likely attributable to these services also being offered by the WHO collaborating center for influenza in London as 82% of respondents indicated they currently use virus characterization services offered by the WHO CC. This is in line with AURORAE's expectations. Forty-five percent of respondents indicated their interest in AURORAE confirmatory testing service by virus neutralization assay for influenza virus.

Several respondents indicated that there are barriers that prevent them from sharing biological material with AURORAE, due to ethical issues (9%), permit issues (27%), or shipment issues (36%). We will contact the respondents that expressed problems to provide help in overcoming these difficulties. Shipment payments are covered by ECDC framework contract with AURORAE.

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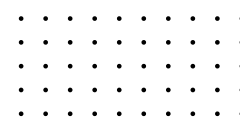
## Handbooks & Protocols

The final part of the questionnaire concerned the handbook on laboratory methods for SARS-CoV-2 characterization ([access here](#)) and laboratory protocol library for influenza virus ([access here](#)) available from the ECDC website.

The majority of respondents (73%) are aware of the availability of the SARS-CoV-2 handbook and 45% are using the handbook. Seventy-three percent of respondents use the handbook on laboratory methods for influenza virus characterization from WHO. Those that are not using the WHO influenza handbook indicate they use their own laboratory methods.

The majority of respondents (82%) know that ECDC hosts a database of protocols for influenza virus diagnostics and characterization and 73% use that protocol database. Those that are not using the influenza protocol database indicate they use their own laboratory methods. The respondents unanimously agreed that AURORAE should continue to update and maintain the laboratory protocol library for influenza virus.

It is important to note that protocols currently available from the database of protocols for influenza virus diagnostics and characterization may contain outdated information (e.g. on oligonucleotide sequences). The SARS-CoV-2 handbook and influenza virus protocol database will be updated in the current AURORAE contract year.



## Summary

The AURORAE User Feedback Survey 2024 aimed to provide a better understanding of the user experience regarding services provided by AURORAE. While some services offered by the AURORAE consortium are valued more than others, the survey results indicate that services from all three topics ((i) Technology Support, (ii) Characterization Services, and (iii) Handbooks & Protocols) are appreciated by the respondents. We will continue to offer these services and further improve them based on the user feedback.

A point of concern are the difficulties experienced by some of the respondents regarding sharing of biological materials with AURORAE. Recently, an initiative for sharing viruses and sera with AURORAE to contribute to a collaborative study on genetic and antigenic characterization of new circulating SARS-CoV-2 variants was proposed, with the purpose of assessment and interpretation of surveillance data (see here ). While the shipment of study samples and analysis costs for that collaborative study will be covered by ECDC through a framework contract with the AURORAE consortium, it is imperative that this initiative will not be hindered by difficulties regarding the sharing of biological materials. We invite any institutes interested in contributing to that study that (anticipate to) experience problems preventing them from sharing biological material with AURORAE to contact us at [info.aurorae@rivm.nl](mailto:info.aurorae@rivm.nl).

## Survey Results

The survey results are shown as percentage of total responses, with the number of respondents that answered yes or no shown in brackets.

### Technology Support (implementation, optimization, validation of tests)

***AURORAE can provide technical support for implementation and optimization of diagnostic assays, virus characterization assays, analyzing antibody titers and antiviral susceptibility testing, for influenza virus and SARS-CoV-2.***

	YES	NO
• Do you need such technical support?	82 (9)	18 (2)

***AURORAE can also provide technical support for validation of diagnostic assays.***

#### Do you:

	YES	NO
• anticipate a need for validation protocols for diagnostic assays?	45 (5)	55 (6)
• need external help (from AURORAE) for validation of diagnostic assays?	45 (5)	55 (6)
• need external help for development and validation of RT-PCR- or NAAT based diagnostic assays?	55 (6)	45 (5)
• require protocols as part of the technical support?	73 (8)	27 (3)

### Would you like to:

	YES	NO
• have one-to-one communications, e.g. on-line or via phone or via email?	55 (6)	45 (5)
• use a confirmatory testing service from the AURORAE lab?	36 (4)	64 (7)
• receive reagents (e.g. pos/neg control materials, primers, etc)?	82 (9)	18 (2)
• receive one-to-one training in your own lab?	36 (4)	64 (7)
• receive one-to-one training in an AURORAE lab?	55 (6)	45 (5)

### Characterization Services

#### **AURORAE offers to perform virus characterization of SARS-CoV-2 clinical specimens**

##### Do you wish to use this service for the purpose of:

	YES	NO
• (full genome) sequencing?	27 (3)	73 (8)
• antigenic characterization?	36 (4)	64 (7)

#### **AURORAE offers to perform virus characterization of SARS-CoV-2 virus isolates**

##### Do you wish to use this service for the purpose of:

	YES	NO
• (full genome) sequencing?	9 (1)	91 (10)
• antigenic characterization?	18 (2)	82 (9)

#### **AURORAE offers to perform virus characterization of influenza clinical specimens (for rapid characterization and selection of relevant viruses to be submitted to the WHO CC)**

##### Do you:

	YES	NO
• wish to use this service to perform virus characterization of influenza virus isolates?	0 (0)	100 (11)
• wish to use this service for the purpose of (full genome) sequencing?	9 (1)	91 (10)
• wish to use this service for the purpose of antigenic characterization?	0 (0)	100 (11)
• currently use this service as offered by the WHO collaborating center for influenza in London? *	82 (9)	18 (2)

**\* If you use this service as offered by the WHO collaborating center for influenza in London, please answer the two questions below.**

### Do you currently use this service:

	YES	NO
• as a service to get your specimens characterized?	20 (2)	80 (8)
• for the benefit of global assessment in the context of vaccine composition recommendations?	90 (9)	10 (1)

### AURORAE can also provide confirmatory testing service by virus neutralization assay

Do you have an interest in this service?	YES	NO
	45 (5)	55 (6)

### Are there any difficulties preventing sharing biological material with AURORAE?

	YES	NO
• Ethical issues?	9 (1)	91 (10)
• Permit issues?	27 (3)	73 (8)
• Shipment issues?	36 (4)	64 (7)
• Problems contacting AURORAE?	0 (0)	100 (11)

## Handbooks & Protocols

### AURORAE has provided a handbook on laboratory methods for SARS-CoV-2 characterization

	YES	NO
• Are you aware of the availability of the handbook?	73 (8)	27 (3)
• Are you using the handbook?	45 (5)	55 (6)
• Do you use a similar handbook on laboratory methods for influenza virus characterization, e.g. from WHO? **	73 (8)	27 (3)

### \*\* If you aren't using a similar handbook on laboratory methods for influenza virus characterization, what are/were the reasons for this?

	YES	NO
• Own laboratory methods are being used	67 (4)	33 (2)
• Unable to locate the handbooks	0 (0)	100 (5)

### ***A laboratory protocol library for influenza virus exists on the ECDC website***

	YES	NO
• Did you know that ECDC hosts a database of protocols for influenza virus diagnostics and characterization on ECDC's extranet?	82 (9)	18 (2)
• Do you use ECDC's database of protocols for influenza diagnostics and characterization? ***	73 (8)	27 (3)
• Should AURORAE update and maintain this electronic database of protocols for influenza virus diagnostics and characterization?	100 (11)	0 (0)
• Are you aware of the portal to upload laboratory protocols for sharing?	64 (7)	36 (4)
• Are you willing to share your protocols?	64 (7)	36 (4)

### ***\*\*\* If you do not use ECDC's database of protocols for influenza diagnostics and characterization, what are/were the reasons?***

	YES	NO
• Own protocols are being used	100 (3)	0 (0)
• Unable to locate the database	0 (0)	100 (2)
• Protocols are outdated	0 (0)	100 (1)

