



# **TESSy - The European Surveillance System**

**Hepatitis of unknown origin**

**Reporting Protocol 2022**

**Version 2.0**

## Contents

Change log .....	3
<b>Introduction .....</b>	<b>4</b>
Case Definition .....	4
Surveillance Objectives .....	4
How to use this document .....	4
Finding further information .....	5
Copyright.....	5
<b>Reporting to TESSy .....</b>	<b>6</b>
Data collection schedule .....	6
Preparing data .....	6
Checking metadata.....	6
Checking your data source profile.....	7
Submitting your data .....	7
Finalising your submission .....	8
TESSy HelpDesk.....	8
<b>Annex - Hepatitis of unknown origin metadata.....</b>	<b>9</b>
Revisions of metadata set .....	9
Current record type versions .....	9
Changes to hepatitis of unknown origin surveillance metadata .....	9
NOVHEP metadata .....	10
Common TESSy Variables .....	10
Demographic variables.....	11
Case classification.....	12
Clinical findings and outcomes.....	12
Previous infection or vaccination.....	17
Laboratory findings.....	18
Epidemiological links and travel history .....	28

## Change log

### Summary of changes in this reporting protocol

V2.0 (29 April 2022)

1. Note added to case definition
2. Added "Epi-linked" to and removed "Confirmed" from coded value list for variable *Classification*
3. Variable *ClinicalPresentation* renamed to *PreviousClinicalPresentation*
4. Variable *ClinicalPresentationOther* renamed to *PreviousClinicalPresentationOther*
5. Variable *Adenotype* renamed to *AdenovType* and defined as text
6. Added "Other" to coded value list for variable *Complications*. Variable configured as repeatable
7. Added "WAITTRANS" (waiting for transplant) to coded value list of variable *Transplant* and removed from variable *Outcome*
8. Added variables *PlaceofResidence*; *PrevInfection*; *PrevInfectionDetails*; *PrevInfectionDetailsOther*; *ComplicationsOther*; *PeakBilirubin*; *PeakINR*; *DateOfPrevSARSCoV2*; *SARSCoV2VaccDate*; *SARSCoV2VaccBrand*; *AdenoStoolDate*; *AdenoRespDate*; *AdenoWholeBloodDate*; *AdenoSerumDate*; *AdenoOtherDate*; *SARSCoV2PCRDate*
9. Variable *PeakASP* removed

V1.0 (25 April 2022)

## Introduction

This reporting protocol is intended for reporting national case-based data for surveillance of hepatitis of unknown origin from all the countries and areas of the WHO European Region, including the 27 countries of the European Union (EU) and the additional three countries of the European Economic Area (EEA), to the European level.

Data are submitted through the case-based record type NOVHEP to the European Surveillance System (TESSy) database hosted at ECDC.

Data can be reported to TESSy either manually, for entry of single cases, or through metadata-standardised csv or xml files for multiple cases (please see technical annex).

Case data should be entered manually into TESSy as soon as possible, and retrospective updates should be submitted through metadata-standardised csv or xml files at least **every Wednesday by 10:00** (including updates to cases diagnosed/reported from Monday to Sunday during the previous week).

This reporting protocol is supplemented by a technical annex, which contains updated generic information for data submission.

## Case Definition

Cases of hepatitis of unknown origin should be reported to TESSy if they meet any of the following criteria:

- **Confirmed:** N/A
- **Probable:** A person presenting with an acute hepatitis (non-hepatitis viruses A, B, C, D and E\*) with aspartate transaminase (AST) or alanine transaminase (ALT) over 500 IU/L, who is 16 years old or younger, since 1 October 2021.
- **Epi-linked:** A person presenting with an acute hepatitis (non-hepatitis viruses A, B, C, D and E\*) of any age who is a close contact of a probable case since 1 October 2021.

Cases of hepatitis with known aetiology such those due to specific infectious diseases, drug toxicity, metabolic hereditary, or autoimmune disorders should not be reported under this protocol.

## Surveillance Objectives

1. To understand the magnitude and spread of this novel public health threat in the WHO European region to inform a proportionate response
2. To generate hypotheses about disease aetiology in order to guide investigations and initial preventive or control measures
3. To describe the population at highest risk of infection and severe outcomes in order to target preventive or control measures
4. To understand the natural history of disease in order to assess its impact and prepare accordingly

## How to use this document

This reporting protocol provides information for data managers in reporting countries in two main sections:

- *Reporting to TESSy* – contains guidelines on how to prepare data for submission to TESSy, deadlines and links to further information.

- [Annex - Hepatitis of unknown origin metadata](#) – the metadata set for the subject covered by this reporting protocol.

## Finding further information

 Paragraphs denoted by the information icon tell where you can find further information.

Updated links to all the schedules, documentation and training materials mentioned are included in [TESSy Technical Guidelines & Tools](#) (see the menu 'Technical Guidelines and Tools' when logged in to TESSy), including:

- Metadata sets and history
- Tutorials for data transformation using respectively Excel and Access
- TESSy user documentation
- [CSV](#) and [XML](#) transport protocols.

## Copyright

© European Centre for Disease Prevention and Control, 2022. Reproduction is authorised, provided the source is acknowledged.

## Reporting to TESSy

This section provides both an overview of the TESSy reporting process and tips on where you can find useful information.

The overall process includes:


1. Familiarising yourself with the data collection deadlines
2. Preparing (exporting and transforming) your data
3. Checking that your data comply with the metadata
4. Checking that your data source profile is up-to-date
5. Submitting your data to TESSy
6. Finalising and approving your submission.

## Data collection schedule

Case data should be entered manually into TESSy as soon as possible, and retrospective updates should be submitted through metadata-standardised csv or xml files at least every Wednesday by 10:00 (including retrospective updates to cases diagnosed/reported from Monday to Sunday during the previous week).

## Preparing data

Data relating to new cases should be entered directly in TESSy for individual records ('Manually create a record'). For any retrospective updates by file upload (CSV or XML format), please note that the data need to be in a format that TESSy accepts (see "checking metadata").

 Tutorials covering how you can transform your data to the correct TESSy format using Excel or Access are available on the [TESSy documents website](#). Information on the file formats is available in the [CSV Transport Protocol](#) and [XML Transport Protocol](#).

## Checking metadata

The TESSy metadata define the fields and data formats valid for a given subject. They are updated in agreement with disease and surveillance networks when public health information needs change.

It is especially important to focus on the following areas.

- **Field formats**  
Many fields require that data are formatted in a specific way. For example, dates must be in the YYYY-MM-DD format; dates in the DD/MM/YYYY format will be rejected.
- **Coded values**  
Some fields only permit the use of specific values (coded values). For example, **M**, **F**, **UNK**, or **Other** are the coded values for *Gender* and any other value in a *Gender* field will be rejected.
- **Repeatable fields**  
For variables where multiple items of the coded value list apply, the field should be repeated as needed to include only one item per field. If not applicable, use N/A.

The metadata file contains all the definitions and rules you need to comply with to format your data correctly. The file can be downloaded as an Excel file from the TESSy documents website.

By filtering the fields in the file by subject, you can see the fields required for your subject and the rules applying to these fields.

 The [Tessy User Guide](#) provides instructions on how you work with the metadata file.

## Checking your data source profile

Before submitting your data, please review the profile for your data source(s) in TESSy (go to **Data Sources**), and update the information, if necessary.



Complete and up-to-date data source information for each subject facilitates surveillance data interpretation - each surveillance system has different features that need to be considered when comparing data at international level.


If your data source information is outdated and you do not have access rights to update it, please ask your National Focal Point for Surveillance or National Coordinator to do so.

 In-depth information on the data source variables is available in the TESSy user documentation.

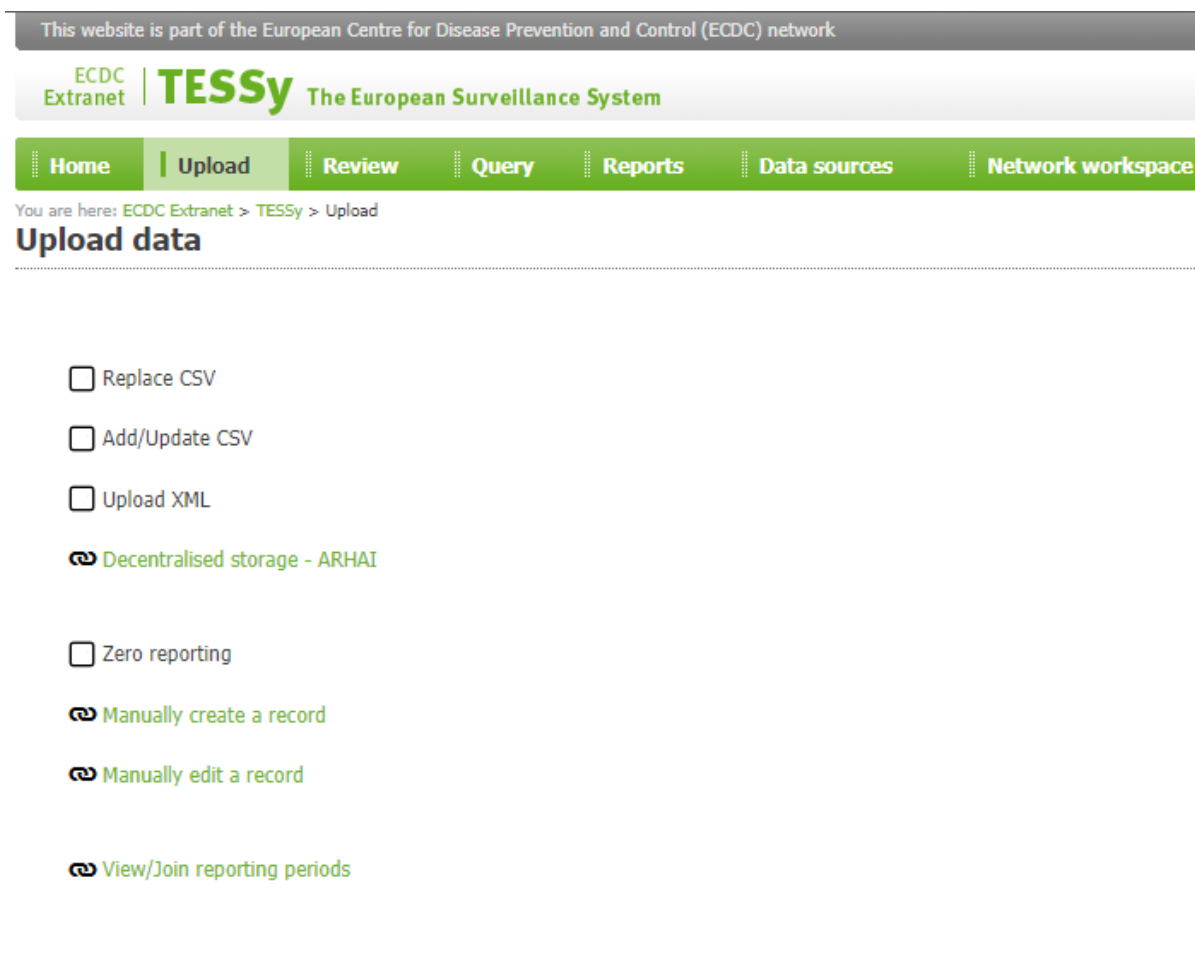
## Submitting your data

Data are submitted through the TESSy web interface (go to **Upload**).



 The *Tessy User Guide* provides instructions on how to submit files to TESSy, and the TESSy user documentation provides in-depth descriptions of all the upload methods.

The screenshot below shows the different options available for NOVHEP data submissions, including manual submissions (individual records), zero reporting and CSV/XML uploads.




## Finalising your submission

The compliance of your data with the validation rules in the metadata is checked automatically during the data upload process.

The result of your upload – i.e. rejected or validated – is displayed immediately after the conclusion of the check in the **Validation details** webpage. Please review the result carefully:

- If your file has been rejected, there will be a message explaining each instance of non-compliance with the metadata that you need to correct.
- If your file has been validated, there might be warnings and remarks relating to possible data quality issues or to potential overwriting of existing records that you should consider.

When your file has been validated and you are satisfied that all corrections have been made, please ensure prompt approval – unapproved uploads can block the approval of other uploads.

 The TESSy user documentation provides information on reviewing validation results and adjusting reporting periods to avoid overwriting existing records.

 General training and guidance on reporting is available on the [TESSy website](#).

## TESSy HelpDesk

Email: [TESSy@ecdc.europa.eu](mailto:TESSy@ecdc.europa.eu)

Telephone number: **+46-(0)8-5860 1601**

Availability: 9:00 – 16:00 Stockholm time, Monday to Friday (except ECDC holidays)



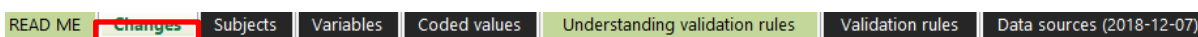
# Annex - Hepatitis of unknown origin metadata

## Revisions of metadata set

The most recent metadata set is available from the TESSy website under the "Technical Guidelines & Tools" tab (as shown below).



When you open a metadata set, the tab 'Changes' lists historical changes.



## Current record type versions

Table 1 shows the record type versions to be used when reporting hepatitis of unknown origin surveillance data to TESSy.

Table 1: Current record type version for hepatitis of unknown origin

Record Type	Type of data	Record type version
NOVHEP	Case-based	2
NOVHEP	Case-based	1 - deactivated

## Changes to hepatitis of unknown origin surveillance metadata

### Record type NOVHEP Version 2 – 29 April 2022

New variables: *PlaceofResidence*; *PrevInfection*; *PrevInfectionDetails*; *PrevInfectionDetailsOther*; *ComplicationsOther*; *DateOfPrevSARSCoV2*; *SARSCoV2VaccDate*; *SARSCoV2VaccBrand*; *AdenoStoolDate*; *AdenoRespDate*; *AdenoWholeBloodDate*; *AdenoSerumDate*; *AdenoOtherDate*; *SARSCoV2PCRDate*

Changes in coded value lists: Please refer to Change log

### INACTIVATED variables (from NOVHEP v1):

*ClinicalPresentation* - renamed to *PreviousClinicalPresentation*

*ClinicalPresentationOther* - renamed to *PreviousClinicalPresentationOther*

*Adenotype* – renamed to *AdenovType*

*PeakASP* – removed

### Record type NOVHEP Version 1 – 22 April 2022

## NOVHEP metadata

The NOVHEP metadata, **record type version 1**, is used for reporting case-based data on hepatitis of unknown origin.

In the descriptions of the variables, the following conventions are used:

<b>VariableName</b>	Literal name of a variable. This never contains spaces. Case is only used to improve readability.
<b>Coding</b>	Code as accepted by the system.
<b>Description of code</b>	Description of the meaning of a possible values for a specific variable.

Example: The gender of a case is described in the variable **Gender**, that can have the possible values **M** for 'Male', **F** for 'Female', **O** for 'Other' and **Unk** for 'Unknown'.

## Common TESSy Variables

### RecordID (mandatory)

Unique case identifier (used in the country)

Coding: Text (max 80 characters)

Please note that ID must be unique if they are derived from the same national reporting system; records with the same ID will be overwritten.

### RecordType (mandatory)

Structure and format of the data (case based reporting or aggregate reporting).

Coding: NOVHEP'

### RecordTypeVersion

Indicates the version of the Record type used in the reported batch. If no RecordTypeVersion is provided in the batch, it is set automatically with current version of the Record type. RecordTypeVersion is required when no metadata set is provided at upload or when a RecordTypeVersion, other than the current one, needs to be used.

Coding: NUM

### Subject (mandatory)

Subject of the data reported.

Coding: NOVHEP = Novel hepatitis

### DataSource (mandatory)

The data source (surveillance system) that the record originates from.

Coding: To be assigned by each country to an existing data source, or to a newly created one.

The data source specifies the surveillance system from which the data originates and is generated and revised/updated by the national focal point in each Member State. The descriptions of the surveillance systems submitted to TESSy ([section Data Sources](#)) will be used to assist with data interpretation. Make sure that the subject "NOVHEP" is associated with this data source.

### **ReportingCountry (mandatory)**

The country reporting the case(s).

Coding: International organization for standardization (ISO) 3166-1-alpha-2, (two-letter code)  
([See the coded values list](#))

This variable identifies the country reporting the case.

### **DateUsedForStatistics (mandatory)**

The date used for statistics is date of reporting to national health authority.

Coding: yyyy-mm-dd

### **Status**

Status of reporting NEW/UPDATE or DELETE (inactivate). Default if left out: NEW/UPDATE. If set to DELETE, the record with the given recordId will be deleted from the TESSy database (or better stated, invalidated.) If set to NEW/UPDATE or left empty, the record is newly entered into the database.

Coding: [Statuses]:  
DELETE = Delete a previously reported record  
NEW/UPDATE = Report a new or update a previously reported record (default)

## **Demographic variables**

### **Age (mandatory)**

Age of patient in years as reported in the national system at the time of disease onset.

Coding: NUM

### **AgeMonths**

Age of patient in months as reported in the national system for cases < 2 years of age at the time of disease onset.

Coding: NUM

### **Gender**

Gender of the reported case.

Coding: Sex:  
F = Female  
M = Male  
O = Other (e.g. transsexual)  
Unk = Unknown

## **PlaceofResidence**

Place of residence of patient at the time of disease onset. Select the most detailed NUTS (EU/EEA) or GAUL (nonEU/EEA) level possible.

Coding: NUTS\_GAUL

*(See the coded values list)*

## **Case classification**

### **Classification (mandatory)**

Case classification according to agreed case definition.

Coding: ClassificationNOVHEP

PROB = Probable

EPILINK = Epi-linked case

## **Clinical findings and outcomes**

### **PreviousClinicalPresentation (Repeatable)**

Clinical symptoms and signs in the four weeks preceding the onset of hepatitis.

Coding: PrecedingSymptomsNOVHEP:

CONJ = Conjunctivitis

DIARR = Diarrhoea

FEVER = History of fever / chills

HEAD = Headache

NONE = None

O = Other, please specify

RESP = Respiratory symptoms

RASH = Rash

SORETHR = Sore throat

UNK = Unknown

VOMIT = Nausea / vomiting

### **PreviousClinicalPresentationOther**

Other clinical symptoms and signs in the four weeks preceding the onset of hepatitis.

Coding: TEXT

### **PrevInfection**

Patient had a confirmed acute infectious disease in the four weeks preceding the onset of hepatitis.

Coding: YesNoUnk:  
N = No  
Unk = Unknown  
Y = Yes

If yes, please specify in PrevInfectionDetails.

### **PrevInfectionDetails**

Specify pathogen responsible for previous known acute infectious disease in the four weeks preceding the onset of hepatitis.

Coding: ADENO = Adenovirus  
ASTRO = Astrovirus  
BOCA = Bocavirus  
CAMP = Campylobacter  
CMV = CMV  
COX = Coxsackie  
EBV = EBV  
ESCCOL = E. coli  
ENVI = Enterovirus  
HSV1 = HSV1  
HHV6 = HHV6  
HHV7 = HHV7  
METAPNEU = Metapneumovirus  
INFL = Influenza  
LEGI = Legionella  
LEPT = Leptospira  
NOROV = Norovirus  
O = Other, please specify  
PARAINFL = Parainfluenza  
PARVOV = Parvovirus  
ROTAV = Rotavirus  
RSV = RSV  
SALM = Salmonella  
SAPO = Sapovirus  
SHIG = Shigella  
YERS = Yersinia  
UNK = Unknown

### **PrevInfectionDetailsOther**

If other previous known acute infectious disease in the four weeks preceding the onset of hepatitis not included in PrevInfectionDetails, please specify.

Coding: TEXT

### **ClinicalSymptoms (Repeatable)**

Clinical symptoms and signs since onset of hepatitis.

Coding:           ClinicalSymptomsNOVHEP:  
                    ANO = Anorexia / poor feeding  
                    CONJ = Conjunctivitis  
                    DARKU = Dark urine  
                    DIARR = Diarrhoea  
                    FEVER = Fever  
                    HEAD = Headache  
                    HEPATOME = Hepatomegaly  
                    IRR = Irritability / confusion  
                    JAUNDICE = Jaundiced  
                    O = Other, please specify  
                    PAINABDO = Pain – abdominal  
                    RESP = Respiratory symptoms  
                    RASH = Rash  
                    SORETHR = Sore throat  
                    STOBLO = Bloody stool  
                    STOPAL = Pale stool  
                    UNK = Unknown  
                    VOMIT = Nausea / vomiting  
                    WEAK = General weakness

### **ClinicalSymptomsOther**

Other reported clinical symptoms anytime during illness, not found in the list of possible values.

Coding:           TEXT

### **Complications (repeatable)**

Complications at any time.

Coding:           ALF = Acute Liver Failure  
                    BMF = Bone Marrow Failure  
                    RF = Renal Failure  
                    HAEM = Hemorrhage  
                    HEPENCEPH = Hepatic encephalopathy  
                    COMA = coma  
                    O = other

### **ComplicationsOther**

Other reported complications, not found in the list of possible values. Please separate using a semi-colon (;) if multiple.

Coding: TEXT

### **DateOfOnset**

Date of onset of first symptoms of disease.

Coding: yyyy-mm-dd

### **DateOfHospitalisation**

Date of Hospitalisation. If multiple hospitalisations, please indicate the first related to hepatitis.

Coding: yyyy-mm-dd

### **AdmittedICUHDU**

Whether admitted to intensive care unit or high-dependency unit.

Coding: YesNoUnk:

N = No

Unk = Unknown

Y = Yes

### **AdmittedTransUnit**

Whether case was admitted to transplant unit.

Coding: YesNoUnk:

N = No

Unk = Unknown

Y = Yes

### **Transplant**

Whether case received liver transplant.

Coding:

N = No

Unk = Unknown

WAITTRANS = Waiting for transplant

Y = Yes

### **HistologyBiop**

Liver histology results either from biopsy, removed organ or post mortem – please indicate including any immunohistochemistry for adenovirus or other infectious agents.

Coding: TEXT

Ideally, results should be reported in English.

### **Outcome (mandatory)**

Information on the outcome of the case.

Coding: OutcomeNOVHEP:  
ALIVE = Alive, recovered, cured  
DIEDHEP = Died due to severe acute hepatitis  
DIEDOTHER = Death not related to severe acute hepatitis  
DIEDUNK = Cause of death unknown  
STILLTREATMENT = Still on medical treatment (not recovered)  
UNK = Unknown outcome

### **DateOfDeath**

Date of death (exact date only).

Coding: yyyy-mm-dd

### **Precondition (mandatory) (repeatable)**

Patient's underlying condition or conditions.

Coding: PreconditionsNOVHEP:  
ASPL = Asplenia  
ASTH = Asthma  
AUTOIMMUNE = Autoimmune disease  
CANC = Cancer, malignancy  
CARDIACDIS = Cardiac disorder, excluding hypertension  
DIAB = Diabetes  
ENDO = Endocrine disease  
GASTRO = Gastrointestinal tract disease  
GENET = Genetic disorder  
HIV = HIV/other immune deficiency  
HYPERT = Hypertension  
KIDNEY = Kidney-related condition, renal disease  
IMMUN = immunosuppressed  
LIVER = Liver-related condition, liver disease  
LUNG = Chronic lung disease, excluding asthma  
METAB = Metabolic disorder  
NEUROMUS = Neuromuscular disorder, chronic neurological  
NONE = None  
O = Other precondition, please specify  
OBES = Obesity  
PREG = Pregnant  
TB = Tuberculosis  
UNK = Unknown precondition



## **PreconditionOther**

Details of underlying conditions, if precondition is coded as 'other', but is known. Please separate using a semi-colon (;) if multiple.

Coding: TEXT

## **Previous SARS-CoV-2 infection or vaccination**

### **PrevSARSCoV2**

Patient had a confirmed infection with SARS-CoV-2 in 6 months before onset of hepatitis.

Coding:

Unk = Unknown

Y = Yes

### **DateOfPrevSARSCoV2**

Date of previous SARS-CoV-2 infection.

Coding: yyyy-mm-dd (preferred)

yyyy-Www

UNK= Unknown

If no exact date available, please provide an estimate.

### **SARSCoV2VaccStatus**

Indicates if the case is vaccinated against SARS-Cov-2 and number of vaccine doses received.

Coding: VaccStatusCOVID:

1DOSE = 1 dose

2DOSE = 2 doses

3DOSE = 3 doses

4DOSE = 4 doses

DOSEUNK = Vaccinated with unknown number of doses

NOTVACC = 0 doses - unvaccinated

UNK = Unknown vaccination status

### **SARSCoV2VaccLastDate**

Date of last dose of COVID-19 vaccine (if vaccinated)

Coding: yyyy-mm-dd (preferred)

yyyy-Www

UNK= Unknown

Date on which the case received last dose of vaccine (preferably exact date, formatted as yyyy-mm-dd). If no exact date available, please provide an estimate.

### **SARSCoV2VaccLastBrand**

Brand of the COVID-19 vaccine administered for last dose

Coding: AZ = AstraZeneca - AZD1222

BECNBG = Beijing CNBG - Inactivated

BHACOV = Bharat - Covaxin  
CHU = Chumakov - Covi-Vac  
COM = Pfizer BioNTech - Comirnaty  
CVAC = Curevac-CVnCOV  
HAYAT-VAC = Hayat-VAX  
JANSS = Janssen - Ad26.COV 2.5  
MOD = Moderna - mRNA-1273  
NVX = Novavax - Covovax  
NVXD = Novavax - Nuvaxovid  
QAZVAQ = QazCovid-In  
SGSK = Sanofi GSK - Subunit  
SIICOV = SII - Covishield  
SIN = Coronavac – Sinovac  
SPU = Gamaleya - Sputnik V  
SPUL = Gamaleya - Sputnik-Light  
SRCVB = SRCVB - EpiVacCorona  
UNK = Unknown  
WUCNGB = Wuhan CNBG - Inactivated  
ZFUZ = Sino-Uzbek - ZF-UZ-VAC

Type of vaccine received for first dose of vaccination course (product name/brand). Product names should be in line with the latest [ECDC NCOVACC reporting protocol](#).

## Laboratory findings

### PeakALT

Peak level of Alanine transaminase (ALT) in IU/L.

Coding: NUM

### PeakAST

Peak level of Aspartate transaminase (AST) in IU/L

Coding: NUM

### PeakBilirubin

Peak level of Bilirubin in IU/L

Coding: NUM

### PeakINR

Peak level of INR

Coding: NUM

### AdenoStoolResult

Result of adenovirus test on stool specimen.

Coding: LaboratoryResultNOVHEP:

N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **AdenoStoolDate**

Date of adenovirus test on stool specimen. In case of multiple specimens, indicate first date (if all negative) or date of first positive result.

Coding:        yyyy-mm-dd  
                 UNK= Unknown

### **AdenoRespResult**

Result of adenovirus test on respiratory specimen.

Coding:        LaboratoryResultNOVHEP:  
                 N = Negative  
                 NT = Not tested  
                 P = Positive  
                 IN = Indeterminate / equivocal  
                 UNK = Tested, but result unknown  
                 DK = Don't know if tested

### **AdenoRespDate**

Date of adenovirus test on respiratory specimen. In case of multiple specimens, indicate first date (if all negative) or first date of positive result.

Coding:        yyyy-mm-dd  
                 UNK= Unknown

### **AdenoWholeBloodResult**

Result of adenovirus test on whole blood specimen.

Coding:        LaboratoryResultNOVHEP:  
                 N = Negative  
                 NT = Not tested  
                 P = Positive  
                 IN = Indeterminate / equivocal  
                 UNK = Tested, but result unknown  
                 DK = Don't know if tested

### **AdenoWholeBloodDate**

Date of adenovirus test on whole blood specimen. In case of multiple specimens, indicate first date (if all negative) or first date of positive result.

Coding:            yyyy-mm-dd (preferred)  
                      UNK= Unknown

### **AdenoSerumResult**

Result of adenovirus test on serum specimen.

Coding:            LaboratoryResultNOVHEP:  
                      N = Negative  
                      NT = Not tested  
                      P = Positive  
                      IN = Indeterminate / equivocal  
                      UNK = Tested, but result unknown  
                      DK = Don't know if tested

### **AdenoSerumDate**

Date of adenovirus test on serum specimen. In case of multiple specimens, indicate first date (if all negative) or first date of positive result.

Coding:            yyyy-mm-dd (preferred)  
                      UNK= Unknown

### **AdenoOtherResult**

Result of adenovirus test on other sample (not stool, respiratory, blood, plasma).

Coding:            LaboratoryResultNOVHEP:  
                      N = Negative  
                      NT = Not tested  
                      P = Positive  
                      IN = Indeterminate / equivocal  
                      UNK = Tested, but result unknown  
                      DK = Don't know if tested

### **AdenoOtherDate**

Date of adenovirus test on another sample (not stool, respiratory, blood, plasma). In case of multiple specimens, indicate first date (if all negative) or first date of positive result

Coding:            yyyy-mm-dd (preferred)  
                      UNK= Unknown

### **AdenotypeDone**

Whether adenovirus typing was done.

Coding:            YesNoUnk:

N = No  
Unk = Unknown  
Y = Yes

### **AdenovType**

Result of adenovirus typing.

Coding: TEXT

### **SARSCoV2PCR**

Result of PCR for SARS-CoV-2 (after onset of hepatitis).

Coding: LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **SARSCoV2PCRDate**

Date of SARS-CoV-2 PCR test (after onset of hepatitis). In case of multiple specimens, indicate first date (if all negative) or first date of positive result.

Coding: yyyy-mm-dd (preferred)  
UNK= Unknown

### **SARSCoV2Serology**

Serology result for past SARS-CoV-2 infection during this episode of illness.

Coding: LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **CMVResult**

Whether CMV test was done during this episode of illness and what the result was.

Coding: LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive

IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **EBVResult**

Whether EBV test was done during this episode of illness and what the result was.

Coding:        LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **EnterovBloodResult**

Whether enterovirus test (PCR on blood) was done during this episode of illness and what the result was.

Coding:        LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **EnterovThroatResult**

Whether enterovirus test was done (PCR throat swab) during this episode of illness and what the result was.

Coding:        LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **HSV1Result**

Whether HSV-1 test was done during this episode of illness and what the result was.

Coding:        LaboratoryResultNOVHEP:  
                  N = Negative

NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **LeptoResult**

Whether Leptospirosis test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **HHV6Result**

Whether HHV6 test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **HHV7Result**

Whether HHV7 test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **RSVResult**

Whether RSV test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
                  N = Negative

NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **INFLResult**

Whether influenza test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **VaricellaResult**

Whether Varicella PCR test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **ParvovirusResult**

Whether parvovirus test was done during this episode of illness and what the result was.

Coding:       LaboratoryResultNOVHEP:  
N = Negative  
NT = Not tested  
P = Positive  
IN = Indeterminate / equivocal  
UNK = Tested, but result unknown  
DK = Don't know if tested

### **HIVResult**

Whether HIV test was done during this episode of illness and what the result was.



Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **LegionellaResult**

Whether legionella test was done during this episode of illness and what the result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **MycoplasmaResult**

Whether mycoplasma test was done during this episode of illness and what the result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **HPeVResult**

Whether human parechoviruses (HPeV) test was done during this episode of illness and what result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **ParainfluenzaResult**

Whether human parainfluenza test was done during this episode of illness and what result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **ASOTResult**

Whether ASOT (antistreptolysin O titer) test was done during this episode of illness and what the result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **BocavirusResult**

Whether Bocavirus test was done during this episode of illness and what the result was.

Coding:           LaboratoryResultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  P = Positive  
                  IN = Indeterminate / equivocal  
                  UNK = Tested, but result unknown  
                  DK = Don't know if tested

### **StoolViralPCRResult**

Whether viral stool PCR was done during this episode of illness and what the result was.

Coding:           StoolViralCultNOVHEP:  
                  N = Negative  
                  NT = Not tested  
                  SAPO = Sapovirus detected  
                  NORO = Norovirus detected  
                  ENTERO = Enterovirus detected  
                  O = Other  
                  UNK = Tested, but result unknown

### **StoolVirCultDone**

Whether viral stool culture was done during this episode of illness.

Coding: YesNoUnk:

N = No

Unk = Unknown

Y = Yes

### **StoolVirCultResult**

Result of viral stool culture during this episode of illness.

Coding: TEXT

### **StoolBacCultDone**

Whether bacterial stool culture was done during this episode of illness.

Coding: YesNoUnk:

N = No

Unk = Unknown

Y = Yes

### **StoolBacCultResult**

Result of bacterial stool culture during this episode of illness.

Coding: TEXT

### **ThroatBacCultDone**

Whether throat bacterial culture done during this episode of illness.

Coding: YesNoUnk:

N = No

Unk = Unknown

Y = Yes

### **ThroatBacCultResult**

Result of throat bacterial culture during this episode of illness.

Coding: TEXT

### **ToxResult**

Result of toxicology screen during this episode of illness.

Coding: TEXT

## Epidemiological links and travel history

### **JAUNDICEFAM**

Family member with history of jaundice within 2 months prior to symptom onset in the case.

Coding: YesNoUnk:  
N = No  
Unk = Unknown  
Y = Yes

### **SARSCoV2FAM**

Family member had SARS-CoV-2 infection within 2 months prior to symptom onset in the case.

Coding: YesNoUnk:  
N = No  
Unk = Unknown  
Y = Yes

### **EpiLink**

Epidemiological link to other case.

Coding: YesNoUnk:  
N = No  
Unk = Unknown  
Y = Yes

### **EpiLinkCaseID**

Unique case identifier (*RecordID* used in the country) of other case to which there is an epidemiological link.

Coding: TEXT

### **Travel**

Whether the case has travelled to another country or region in the 30 days prior to symptom onset.

Coding: YesNoUnk:  
N = No  
Unk = Unknown  
Y = Yes

Regular domestic travels (such as daily commutes) should not be considered for this purpose.

### **TravelLocation**

Location of travel in the 30 days prior to symptom onset.

Coding: NUTS-GAUL coded value list