



Core questionnaire: Patients of all ages

Version 4 September 2023

QUESTIONNAIRE TO BE FINALIZED FOR ALL ENROLLED PATIENTS

for all eligible patients hospitalized in the previous **72** hours and overnight hospitalization, who are able to communicate (alt. through a proxy), who have given consent to participate in the study **and** who are experiencing symptoms in the last 10 days prior to admission

In the following questions, "do not know" answers apply for unknown information or not collected variables

Screening

1) How was patient identified as a potential surveillance case?

1.a. Case finding based on pre-defined admission diagnosis (*Refer to Annex1*) Yes No

If Yes:

i. Admission diagnosis (letter/code.subcode) | | | | . | | | Not available

ii. ICD version used ICD-9 ICD-10

1.b. Case finding based on hospital admission logs for acute respiratory illness Yes No

1.c. Case finding based on positive swab from hospital diagnostic test for admitted patients Yes No

2) Date of admission (yyyy-mm-dd) | | | | - | | | - | | |

3) What is the hospital ID? | | | | | | | |

4) Patient study identification number | | | | | | | | | |

5) Sex Female Male

6) Age | | | | days months years

7) Has the patient had any one of these symptoms in the last 7-10 days prior to admission? (*mark all that applies*)

a) ILI systemic symptoms

- ✓ Fever/history of fever Yes No Do not know
- ✓ Malaise/fatigue/lethargy Yes No Do not know
- ✓ Headache Yes No Do not know
- ✓ Myalgia/muscle ache/body-ache Yes No Do not know

b) ILI respiratory symptoms

- ✓ Cough Yes No Do not know
- ✓ Sore throat Yes No Do not know
- ✓ Shortness of breath/difficult breathing Yes No Do not know
- ✓ Wheezing Yes No Do not know
- ✓ Nasal congestion/runny nose Yes No Do not know

8) Case definition used: (Refer to Annex 2) – One answer only

- 8.1. SARI case definition** Yes No
- 8.2. Extended SARI case definition** Yes No
- 8.3. ECDC modified case definition** Yes No
- 8.4. Acute respiratory illness case definition** Yes No
- 8.5. Laboratory confirmed influenza** Yes No
- 8.6. Laboratory confirmed Covid-19** Yes No
- 8.7. Other (please detail:)** Yes No

Sequencing scheme for all samples (patients of all ages):

<i>Hemisphere</i>	<i>Early season</i>	<i>ICU/deaths and vaccine failures</i>	<i>Samples per month</i>
<i>Northern</i>	<i>all samples until 15 January</i>	<i>All</i>	<i>10-30 (during season)</i>
<i>Southern</i>	<i>all samples until 15 July</i>	<i>All</i>	<i>10-30 (during season)</i>
<i>Intertropical</i>	<i>NA</i>	<i>All</i>	<i>5-15 (all year)</i>

Swabbing

9) a. Date of swabbing (yyyy-mm-dd) - - Do not know
 (During hospital stay)

b. Date of swabbing (yyyy-mm-dd) (For COVID-19 Only - if done within 14 days from hospital admission date) - - NA

Laboratory Results

10) a. Does the patient have a positive flu result? Yes No Inadequate sample

b. If yes, tick the boxes corresponding to the positive virus(es)

- H1N1pdm09
- H3N2
- B/Yamagata
- B/Victoria
- Influenza A not subtyped
- Influenza B no lineage information

11) a. Did you test for other respiratory viruses? Yes No Inadequate sample

b. If yes, tick the boxes indicating for which pathogen test was requested and whether test was positive or not

Test performed	Test result positive
<input type="checkbox"/> Adenovirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Bocavirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Common human coronaviruses (229E, NL63, OC43, HKU1)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Enterovirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Human Metapneumovirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> MERS-CoV	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Parainfluenza viruses	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Picornavirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Respiratory syncytial virus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Rhinovirus	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> SARS-CoV	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> SARS-CoV-2	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Others, please detail:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Submission of samples to GISAID EpiFlu™ database via the GISAID platform:
All genome sequence data from selected severe influenza cases and all COVID-19 cases are to be submitted on the GISAID platform on a continued basis (http://gisaid.org/EPI_ISL/123456)

Clinical history

Patient characteristics

12) Other signs or symptoms at disease presentation (i.e., started in the past 10 days) Mark all that applies or select not applicable

- ✓ Nausea or vomiting Yes No Do not know
- ✓ Diarrhea Yes No Do not know
- ✓ New loss of taste or smell Yes No Do not know
- ✓ Chest pain Yes No Do not know

13) a. Pregnancy status

- Yes No Non-applicable

b. If yes, pregnancy weeks:

- |_|_| weeks Do not know

14) Height (Only for children <5 years - Round up to the nearest integer)

- |_|_|_| cm Do not know

15) Weight (Only for children <5 years - Round up to the nearest integer)

- |_|_|_| kg Do not know

16) a. Does the patient have any chronic conditions?

- Yes No Do not know

b. If yes, indicate which ones (Mark all that applies)

- Cardiovascular disease
- Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
- Asthma
- Diabetes
- Immunodeficiency (**except HIV**) / Organ transplant
- Renal impairment
- Rheumatologic disease / Autoimmune disease
- Neurological or neuromuscular disease
- Cirrhosis / Liver disease
- Neoplasm (active)
- Obesity
- Active tuberculosis
- Malnutrition (Only for children < 5 years)
- HIV infection
- HIV exposure (if children < 5 year)

- Hemoglobinopathies
- Born premature, ie., <37 week gestation (Only for children < 5 years)
- Other

17) a. Use of influenza antivirals (oseltamivir, zanamivir, favipiravir o peramivir) for the current episode initiated before this admission? Yes No Do not know

b. Starting Date (yyyy-mm-dd) - -

18) a. Use of influenza antiviral (oseltamivir, zanamivir, favipiravir o peramivir) for the current episode initiated during this admission Yes No Do not know

b. Starting Date (yyyy-mm-dd) - -

19) a. Use of antibiotics preceding this admission? Yes No Do not know

b. Starting Date (yyyy-mm-dd) - -

20) a. Use of antibiotics during this admission? Yes No Do not know

b. Starting Date (yyyy-mm-dd) - -

Vaccination Status

- 1) Vaccination status influenza:
- a. Influenza vaccination for the current season Yes No Do not know
If yes :
- b. Vaccinated more than 14 days before onset of acute respiratory symptoms Yes No Do not know
- c. Vaccination history for current season validated through registry or medical records? Yes No Do not know
- d. Type of influenza vaccine? IIV3 IIV4 Do not know
- e. Influenza vaccination in the preceding season? Yes No Do not know

- 2) Vaccination status COVID-19:
- a. How many COVID-19 vaccine doses received? None One Two Three or more Do not know
- b. Date of last vaccine dose (yyyy-mm-dd) - -
- c. If at least one dose received, which type(s) of COVID-19 vaccine(s)? (check all that apply)
- mRNA (e.g., Moderna, Pfizer BioNtech)
 - Inactivated whole virion (e.g., Sinopharm, Sinovac)
 - Viral vector vaccine (e.g., AstraZenica, Sputnik)

- Protein subunit vaccine (e.g., Novavax)
- Do not know

Severity (measured at admission)

- 3) Confusion/lethargy Yes No Do not know
- 4) Blood pressure (systolic/diastolic) |__|__|__| / |__|__|__| mmHg Do not know
- 5) Respiratory rate (breaths per minute) |__|__| bpm Do not know
- 6) Oxygen saturation value on ambient air (%) |__|__|__| % Do not know
- 7) Supplemental oxygen without mechanical ventilation Yes No Do not know
- 8) Vasopressor support Yes No Do not know
- 9) Apnea (only for children <5) Yes No Do not know

- 10) What is the baseline frailty score of the patient (only for all patients 50 years and older), prior to onset of the current illness? (category 1-9) *(see annex 3 for definition of the scale)* Category |__|__| Do not know

Severity (measured at any time during admission)

- 11) ICU admission (at any time during hospitalization) Yes No Do not know
- 12) High dependence unit (at any time during hospitalization) *(See Annex 4 for definition)* Yes No N/A or Do not know
- 13) Mechanical ventilation (at any time during hospitalization) Yes No Do not know

Outcome

- 14) Death while hospitalized Yes No Do not know
- 15) Discharge/death date (yyyy-mm-dd) |__|__|__| - |__|__| - |__|__|
- 16) Transfer to another hospital/Left against medical orders Yes No Do not know
- 17) a. Main diagnose at discharge/death (letter/code.subcode) |__|__|__| . |__|__| Not available
- b. Secondary 1 diagnose at discharge/death (letter/code.subcode) |__|__|__| . |__|__| Not available
- c. Secondary 2 diagnose at discharge/death (letter/code.subcode) |__|__|__| . |__|__| Not available
- d. ICD used ICD-9 ICD-10
- 18) What is the frailty score of the patient at discharge (only for all patients 50 years and older)? (category 1-9) *See annex 2 for definition of the scale* Category |__|__| Do not know

Data Linking

19) GISAID EpiFlu™ database sharing:

a. Did you submit the sample to GISAID EpiFlu™ database?

Yes No No, failed sequencing

b. If yes, please enter the GISAID Accession Number (EPI_ISL)

The GISAID Accession Number needs to be completed for the data linkage (clinical/sequencing).

c. Please indicate if it is an influenza sample, or a Covid-19 sample, or both.

End of the questionnaire. Please send the questionnaire to PI for recording.

Annex 1: Admission diagnoses

Case ascertainment/Case finding

You can use this Table as a guidance to identify patients that may be eligible to participate in the surveillance system. You can use the list of acute events and/or ICD codes if available at your hospital or you can rely on other case ascertainment strategies, like looking at hospital admission logs, or looking at emergency department logs, infectious disease contacts etc.

Table 1. Example of admission diagnoses possibly associated with an influenza infection that could be taken into account when looking for eligible patients.

International Classification of Diseases Code version 9 and 10.

For patients less than 5 years	ICD 9 Codes	ICD 10 Codes
Acute upper or lower respiratory disease	382.9; 460 to 466	J00-J06, J20-J22
Dyspnea, breathing anomaly, shortness of breath, tachypnea (polypnea)	786.0; 786.00; 786.05-786.07; 786.09; 786.9	R06.0, R06, R06.9, R06.3, R06.00, R06.09, R06.83, R06.02, R06.82, R06.2, R06.89
Acute asthma or exacerbation	493.92	J45.901
Pneumonia and influenza	480 to 488	J09-J18
Acute respiratory failure	518.82	J96
Acute heart failure	428-429.0	I50-I50.9; I51.4
Myalgia	729.1	M79.1
Altered consciousness, convulsions, febrile convulsions	780.01-780.02; 780.09; 780.31- 780.32	R40.20, R40.4, R40.0, R40.1, R56.00, R56.01
Fever or fever unknown origin or non specified	780.6-780.60	R50, R50.9
Cough	786.2	R05
Gastrointestinal manifestations	009.0; 009.3	A09.0; A09.9
Sepsis, Systemic inflammatory response syndrome, not otherwise specified	995.90-995.94	R65.10, R65.11, R65.20, A41.9
Nausea and vomiting	078.82; 787.0; 787.01-787.03	R11; R11.0; R11.10 - R11.12; R11.2
Loss of smell, loss of taste		R43.8 , R43.8,
Pneumonia due to coronavirus disease 2019		J12.82, U07.1,
Coronavirus infection, unspecified		B34.2, U07.1, J12.81

SARS-associated coronavirus as the cause of diseases classified elsewhere		B97.21
Bacterial infection, unspecified, in conditions classified elsewhere and of unspecified site	041.9	
Transient cerebral ischemia	435	
Acute, but ill-defined, cerebrovascular disease	436	
Chronic bronchitis	491	
Asthma	49	
Chronic airway obstruction, not elsewhere classified	496	
Dizziness / Vertigo, NOS	780.4	
Altered mental status	780.97	
Symptoms concerning nutrition, metabolism and development: Feeding difficulties and mismanagement	783.3	
Symptoms concerning nutrition, metabolism and development : Other	783.9	
Viremia, unspecified	790.8	

For patients 5 years and older	ICD 9 Codes	ICD 10 Codes
Acute upper or lower respiratory disease	382.9; 460-466	J00-J06, J20-J22, H66.90
Acute myocardial infarction or acute coronary syndrome	410-411 and 413-414	I20-I25.9
Acute asthma or exacerbation	493.92	J45.901
Acute Heart failure	428-429.0	I50-I50.9; I51.4
Pneumonia and influenza	480-488	J09-J18
Bronchitis and exacerbations of Chronic Pulmonary Obstructive disease	490, 491.21 and 491.22,	J40; J44.0; J44.1
Acute respiratory failure	518.82	J96
Myalgia	729.1	M79.1
Acute metabolic failure (diabetic coma, renal dysfunction, acid-base disturbances, alterations to the water balance)	250.1- 250.3; 584-586; 276-277	E11.9, E10.9, E11.65, E10.65, E10.11, E11.01, E10.641, E11.641,

		E10.69, E11.00, E10.10, E11.69, N17.0, N17.1, N17.2, N17.8, N17.9, N18.1, N18.2, N18.3, N18.4, N18.5, N18.6M N18.9, N19, E87.0, E87.1, E87.2, E87.3, E87.4, E87.5, E87.6, E87.70, E87.71, E87.79, E86.0, E86.1
Altered consciousness, convulsions, febrile convulsions, syncope and collapse	780.01-780.02; 780.09; 780.2; 780.31-780.32	R40.20, R40.4, R40.0, R40.1, R55, R56.00, R56.01
Dyspnea/respiratory abnormality	786.0	R06.0, R06-R06.9
Respiratory abnormality	786.00	R06.9
Shortness of breath	786.05	R06.02
Respiratory abnormality not otherwise specified	786.09	R06.3, R06.00, R06.09, R06.83
Respiratory symptoms/chest symptoms	786.9	R06.89
Fever or fever unknown origin or non-specified	780.6-780.60	R50, R50.9
Cough	786.2	R05
Sepsis, Systemic inflammatory response syndrome	995.90-995.94	R65.10, R65.11, R65.20, A41.9
Loss of smell, loss of taste		R43.8 , R43.8,
Pneumonia due to coronavirus disease 2019		J12.82, U07.1,
Coronavirus infection, unspecified		B34.2, U07.1, J12.81
SARS-associated coronavirus as the cause of diseases classified elsewhere		B97.21
Bacterial infection, unspecified, in conditions classified elsewhere and of unspecified site	041.9	
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Acute, but ill-defined, cerebrovascular disease	436	
Chronic bronchitis	491	
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Chronic airway obstruction, not elsewhere classified	496	
Dizziness / Vertigo, NOS	780.4	
Altered mental status	780.97	
Symptoms concerning nutrition, metabolism and development: Feeding difficulties and mismanagement	783.3	
Symptoms concerning nutrition, metabolism and development : Other	783.9	
Viremia, unspecified	790.8	

1. Severe acute respiratory infection (SARI) case definition

(<https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/case-definitions-for-ili-and-sari>)

An acute respiratory infection with:

- history of fever or measured fever of $\geq 38\text{C}^{\circ}$
- and cough;
- with onset within the last 10 days.
- and requires hospitalization

2. Extended SARI case definition

An acute respiratory infection with cough and onset within 10 days that requires hospitalization (no fever required)

3. ECDC modified case definition for influenza like-illness (ILI) in last 7 days

Combination of:

- at least one of the following four systemic symptoms: fever or feverishness, headache, myalgia, or malaise;
- at least one of the following three respiratory symptoms: cough, sore throat or shortness of breath

4. Acute respiratory illness case definition: Acute onset of at least one of the following four respiratory symptoms: cough or sore throat or shortness of breath or coryza and a clinician's judgment that illness is due to infection

5. Laboratory confirmed influenza – a hospitalized person who has a positive laboratory test for influenza within 48 hours of hospital admission

6. Laboratory confirmed COVID-19 – Laboratory confirmed Covid-19 – a hospitalized person who has a positive laboratory test for Covid-19 before or during hospital admission. If test result before admission, the current admission should be associated with this episode of COVID-19 6

Annex 3: Frailty scale

The frailty scale according to the categories defined below. If a subject is in between levels use best judgement.

Category 1: Very Fit. People who are robust, active, energetic and motivated. The people commonly exercise regularly. They are among the fittest for their age.

Category 2: Well. People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally

Category 3: Managing Well. People whose medical problems are well controlled but are not regularly active beyond routine walking.

Category 4: Vulnerable. While not dependent on others for daily help, often symptoms limit activities. A common complaint is being “slowed up”, and/or being tired during the day.

Category 5: Mildly Frail. These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

Category 6: Moderately Frail. People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.

Category 7: Severely Frail. Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months)

Category 8: Very Severely Frail. Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

Category 9: Terminally Ill. Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.

Annex 4: High dependency units

When considering high dependency units, please bear the following in mind:

- **High dependency units (HDUs) are wards for people who need more intensive observation, treatment and nursing care than is possible in a general ward but slightly less than that given in intensive care unit (ICU).**
- **Another way to distinguish the two units is by the nurse to patient ratio. In ICU you may have the nurse to patient ratio as 1:1 whereas this may be 1:2 or 1:3 in HDUs. In a normal ward we can have 1 nurse covering up to 15 patients. Again, these are realities that may differ from country to country depending on resource availability.**
- **Not all hospitals will have HDUs, and each country or hospital may have a different level of accepted care at their HDU facilities. For instance, often mechanical ventilation is implemented in the ICU environment, but some hospitals (depending on country's policy) may have patients in mechanical ventilation staying at their HDUs.**

If your hospital does not have a HDU, please chose “not applicable” option in the database