

Influenza-like Illness

Date

December 17, 2025 (Corrected XPath and SAS code)

May 27, 2025 (updated to ignore eSituation.10 - Other Associated Symptoms if it has a Pertinent Negative, "Symptom Not Present"; added ICD-10-CM code U07.1)

August 30, 2021

Definition

The patient may have an influenza-like illness.

Criteria Description

Patient care reports where:

- any symptom or impression is influenza-like illness
or
- any two distinct symptoms or impressions are influenza-like.

Pseudocode

Patient care reports where:

eSituation.09 - Primary Symptom

eSituation.10 - Other Associated Symptoms (without Pertinent Negative)

eSituation.11 - Provider's Primary Impression

eSituation.12 - Provider's Secondary Impressions

- B97.2* Coronavirus as the cause of diseases classified elsewhere
- J00 Acute nasopharyngitis [common cold]
- J09*–J18* Influenza and pneumonia
- J20*–J22* Other acute lower respiratory infections
- U07.1 COVID-19
- Z20.8* Contact with and (suspected) exposure to other communicable diseases
- Z20.9 Contact with and (suspected) exposure to unspecified communicable disease

OR

eSituation.09 - Primary Symptom
 eSituation.10 - Other Associated Symptoms
 eSituation.11 - Provider's Primary Impression
 eSituation.12 - Provider's Secondary Impressions

Two or more distinct values of the following:

- J02* Acute pharyngitis
- J03* Acute tonsillitis
- J06 Acute upper respiratory infections of multiple and unspecified sites
- J80 Acute respiratory distress syndrome
- J98.9 Respiratory disorder, unspecified
- M79.1* Myalgia
- R05 Cough
- R06 Abnormalities of breathing
- R06.0* Dyspnea
- R06.8 Other abnormalities of breathing
- R06.89 Other abnormalities of breathing
- R06.9 Unspecified abnormalities of breathing
- R07.0 Pain in throat
- R09.81 Nasal congestion
- R50 Fever of other and unknown origin
- R50.8 Other specified fever
- R50.81 Fever presenting with conditions classified elsewhere
- R50.9 Fever, unspecified
- R51* Headache
- R53 Malaise and fatigue
- R53.1 Weakness
- R53.8 Other malaise and fatigue
- R53.81 Other malaise
- R53.83 Other fatigue
- R68.83 Chills (without fever)

XPath Code

/EMSDataset/Header/PatientCareReport

```
[
  eSituation/(eSituation.09, eSituation.10[not(@PN)], eSituation.11, eSituation.12)
  [matches(., '^((B97\.2.*)|(J00.*)|(J09.*)|(J1[0-8].*)|(J2[0-2].*)|(U07\.1)|
  (Z20\.8.*)|(Z20\.9))$')]
  or
  count(distinct-values
  (eSituation/(eSituation.09, eSituation.10, eSituation.11, eSituation.12)
  [matches(., '^((J02.*)|(J03.*)|(J06)| (J80)| (J98\.9)| (M79\.1.*)|(R05)|(R06)|
  (R06\.0.*)|(R06\.8)|(R06\.89)|(R06\.9)|(R07\.0)|(R09\.81)|(R50)|(R50\.8)|
  (R50\.81)|(R50\.9)|(R51.*)|(R53)|(R53\.1)|(R53\.8)|(R53\.81)|(R53\.83)|
  (R68\.83))$')])]
```

```
)) > 1  
]
```

SAS Code

The NEMESIS public release research dataset does not include the Pertinent Negative attribute on eSituation.10 - Other Associated Symptoms, which was added in NEMESIS version 3.5, so the SAS code will select some records where a symptom was actually documented as “Symptom Not Present.” This is estimated to affect less than 3% of v3.5 records.

```
proc sql;  
  create table InfluenzaLikeIllnessKey as  
  select distinct pcrKey from  
  (  
    union  
    select pcrKey from nemsis.factPcrPrimarySymptom where prxmatch(  
      '/^((B97\.2\.*)|(J00\.*)|(J09\.*)|(J1[0-8]\.*)|(J2[0-2]\.*)|(U07\.1)|(Z20\.8\.*)|  
      (Z20\.9))$/', eSituation_09)  
    union  
    select pcrKey from nemsis.factPcrAdditionalSymptom where prxmatch(  
      '/^((B97\.2\.*)|(J00\.*)|(J09\.*)|(J1[0-8]\.*)|(J2[0-2]\.*)|(U07\.1)|(Z20\.8\.*)|  
      (Z20\.9))$/', eSituation_10)  
    select pcrKey from nemsis.factPcrPrimaryImpression where prxmatch(  
      '/^((B97\.2\.*)|(J00\.*)|(J09\.*)|(J1[0-8]\.*)|(J2[0-2]\.*)|(U07\.1)|(Z20\.8\.*)|  
      (Z20\.9))$/', eSituation_11)  
    union  
    select pcrKey from nemsis.factPcrSecondaryImpression where prxmatch(  
      '/^((B97\.2\.*)|(J00\.*)|(J09\.*)|(J1[0-8]\.*)|(J2[0-2]\.*)|(U07\.1)|(Z20\.8\.*)|  
      (Z20\.9))$/', eSituation_12)  
    union  
    select pcrKey from  
    (  
      select pcrKey, count(distinct diagnosis) as c from  
      (  
        select pcrKey, eSituation_09 as diagnosis  
          from Nemsis.factPcrPrimarySymptom where prxmatch('/^((J02\.*)|  
          (J03\.*)|(J06)|(J80)|(J98\.9)|(M79\.1\.*)|(R05)|(R06)|(R06\.0\.*)|  
          (R06\.8)|(R06\.89)|(R06\.9)|(R07\.0)|(R09\.81)|(R50)|(R50\.8)|  
          (R50\.81)|(R50\.9)|(R51\.*)|(R53)|(R53\.1)|(R53\.8)|(R53\.81)|  
          (R53\.83)|(R68\.83))$/', eSituation_09)  
        union  
        select pcrKey, eSituation_10 as diagnosis  
          from Nemsis.factPcrAdditionalSymptom where prxmatch('/^((J02\.*)|  
          (J03\.*)|(J06)|(J80)|(J98\.9)|(M79\.1\.*)|(R05)|(R06)|(R06\.0\.*)|
```

```

        (R06\.8)|(R06\.89)|(R06\.9)|(R07\.0)|(R09\.81)|(R50)|(R50\.8)|
        (R50\.81)|(R50\.9)|(R51\.*)|(R53)|(R53\.1)|(R53\.8)|(R53\.81)|
        (R53\.83)|(R68\.83))$/', eSituation_10)
union
select pcrKey, eSituation_11 as diagnosis
    from Nemsis.factPcrPrimaryImpression where prxmatch('/^((J02\.*)|
    (J03\.*)|(J06)|(J80)|(J98\.9)|(M79\.1\.*)|(R05)|(R06)|(R06\.0\.*)|
    (R06\.8)|(R06\.89)|(R06\.9)|(R07\.0)|(R09\.81)|(R50)|(R50\.8)|
    (R50\.81)|(R50\.9)|(R51\.*)|(R53)|(R53\.1)|(R53\.8)|(R53\.81)|
    (R53\.83)|(R68\.83))$/', eSituation_11)
union
select pcrKey, eSituation_12 as diagnosis
    from Nemsis.factPcrSecondaryImpression where prxmatch('/^((J02\.*)|
    (J03\.*)|(J06)|(J80)|(J98\.9)|(M79\.1\.*)|(R05)|(R06)|(R06\.0\.*)|
    (R06\.8)|(R06\.89)|(R06\.9)|(R07\.0)|(R09\.81)|(R50)|(R50\.8)|
    (R50\.81)|(R50\.9)|(R51\.*)|(R53)|(R53\.1)|(R53\.8)|(R53\.81)|
    (R53\.83)|(R68\.83))$/', eSituation_12)
    )
group by pcrKey
)
where c > 1
)
;
quit;

```

Discussion

The criteria for this case definition are not specifically tailored to select potential COVID-19 cases; instead, they select multiple influenza-like illnesses, including but not limited to potential COVID-19 cases.

The *CDC COVID-19 ICD-10-CM Official Coding and Reporting Guidelines* state,

“If the COVID-19 is documented as being associated with a respiratory infection, NOS, codes U07.1 and J98.8, *Other specified respiratory disorders*, should be assigned.”

“For acute respiratory distress syndrome (ARDS) due to COVID-19, assign codes U07.1, and J80, *Acute respiratory distress syndrome*.”

“During pregnancy, childbirth or the puerperium, a patient admitted (or presenting for a health care encounter) because of COVID-19 should receive a principal diagnosis code of O98.5-, *Other viral diseases complicating pregnancy, childbirth and the puerperium*, followed by code U07.1, COVID-19, and the appropriate codes for associated manifestation(s).”

Support for “U” codes in was added in NEMESIS version 3.5.1.

References

National Influenza-Like Illness (ILI) Surveillance Dashboard. Global Inclusion Criteria and Filters. wiki.utahdccc.org/confluence/display/NTD/National+Influenza-Like+Illness+%28ILI%29+Surveillance+Dashboard.

CDC COVID-19 ICD-10-CM Official Coding and Reporting Guidelines, April 1, 2020 through September 30, 2020. [cdc.gov/nchs/data/icd/COVID-19-guidelines-final.pdf](https://www.cdc.gov/nchs/data/icd/COVID-19-guidelines-final.pdf).