

# STEMI

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## Date

August 26, 2021

## Definition

The patient experienced a STEMI.

## Criteria Description

Patient care reports where:

- any symptom or impression is STEMI  
or
- cardiac rhythm is STEMI  
or
  - any symptom or impression is angina pectoris or unspecified angina  
and
  - cardiac rhythm is left bundle branch block
- or
- STEMI protocol is used  
or
- a STEMI destination team pre-arrival alert or activation is performed.

## Pseudocode

Patient care reports where:

eSituation.09 - Primary Symptom

eSituation.10 - Other Associated Symptoms

eSituation.11 - Provider's Primary Impression

eSituation.12 - Provider's Secondary Impressions

- I21.0\* ST elevation (STEMI) myocardial infarction of anterior wall
- I21.1\* ST elevation (STEMI) myocardial infarction of inferior wall
- I21.2\* ST elevation (STEMI) myocardial infarction of other sites
- I21.3 ST elevation (STEMI) myocardial infarction of unspecified site

OR

eVitals.03 - Cardiac Rhythm

- STEMI Anterior Ischemia
- STEMI Inferior Ischemia
- STEMI Lateral Ischemia
- STEMI Posterior Ischemia

OR

(

eSituation.09 - Primary Symptom

eSituation.10 - Other Associated Symptoms

eSituation.11 - Provider's Primary Impression

eSituation.12 - Provider's Secondary Impressions

- I20 Angina pectoris
- I20.0 Unstable angina
- I20.9 Angina pectoris, unspecified

AND

eVitals.03 - Cardiac Rhythm

- Left Bundle Branch Block

)

OR

eProtocols.01 Protocols Used

- Medical-ST-Elevation Myocardial Infarction (STEMI)

OR

eDisposition.24 - Destination Team Pre-Arrival Alert or Activation

- Yes-STEMI

## XPath Code

/EMSDataset/Header/PatientCareReport

[

eSituation/(eSituation.09, eSituation.10, eSituation.11, eSituation.12)

[matches(., '^((I21.0)|(I21.1)|(I21.2)|(I21.3))')

or

eVitals/eVitals.VitalGroup/eVitals.03 =

('9901051', '9901053', '9901055', '9901057')

or

(

eSituation/(eSituation.09, eSituation.10, eSituation.11, eSituation.12) =

```

        ('I20', 'I20.0', 'I20.9')
    and
    eVitals/eVitals.VitalGroup/eVitals.03 = '9901021'
)
or
eProtocols/eProtocols./ProtocolGroup/eProtocols.01 = '9914143'
or
eDisposition/eDisposition.HospitalTeamActivationGroup/eDisposition.24 = '4224013'
]

```

## SAS Code

```

proc sql;
  create table StemKey as
  select distinct pcrKey from
  (
    select pcrKey from nemsis.factPcrPrimaryImpression where
      substr(eSituation_11,1,5) in ('I21.0', 'I21.1', 'I21.2', 'I21.3')
    union
    select pcrKey from nemsis.factPcrSecondaryImpression where
      substr(eSituation_12,1,5) in ('I21.0', 'I21.1', 'I21.2', 'I21.3')
    union
    select pcrKey from nemsis.factPcrPrimarySymptom where
      substr(eSituation_09,1,5) in ('I21.0', 'I21.1', 'I21.2', 'I21.3')
    union
    select pcrKey from nemsis.factPcrAdditionalSymptom where
      substr(eSituation_10,1,5) in ('I21.0', 'I21.1', 'I21.2', 'I21.3')
    union
    select pcrKey from nemsis.factPcrVital where pcrVitalKey in
      (
        select vitalKey from nemsis.pcrVitalEcgGroup where eVitals_03 in
          ('9901051', '9901053', '9901055', '9901057')
      )
    union
    select pcrKey from nemsis.factPcrVital where pcrVitalKey in
      (
        select vitalKey from nemsis.pcrVitalEcgGroup where eVitals_03 =
          '9901021'
      )
    and pcrKey in
      (
        select pcrKey from nemsis.factPcrPrimaryImpression where
          eSituation_11 in ('I21', 'I20.0', 'I20.9')
        union

```

```
select pcrKey from nemsis.factPcrSecondaryimpression where
    eSituation_12 in ('I21', 'I20.0', 'I20.9')
union
select pcrKey from nemsis.factPcrPrimarySymptom where
    eSituation_09 in ('I21', 'I20.0', 'I20.9')
union
select pcrKey from nemsis.factPcrAdditionalSymptom
    where eSituation_10 in ('I21', 'I20.0', 'I20.9')
)
union
select pcrKey from nemsis.factPcrProtocol where eProtocol_01 = '9914143'
union
select pcrKey from nemsis.factPcrDestinationTeam where eDisposition_24 =
    '4224013')
)
;
quit;
```

## Discussion

None.

## References

*NEMSIS V3 Public STEMI Dashboard*. Global Inclusion Criteria and Filters.  
[wiki.utahdcc.org/confluence/display/NTD/V3+Public+STEMI+Dashboard](http://wiki.utahdcc.org/confluence/display/NTD/V3+Public+STEMI+Dashboard).