NEMSIS V3 Case Definition

STEMI

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 StemiKey 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](wiki.utahdcc.org/confluence/display/NTD/V3+Public+STEMI+Dashboard).