University of Utah
Central Data Management Coordinating Center

ANNOTATED eCRF FOR PUBLIC USE DATASETS

Predicting Cervical Spine Injury in Children: A Multi-Centered Case-Control Analysis
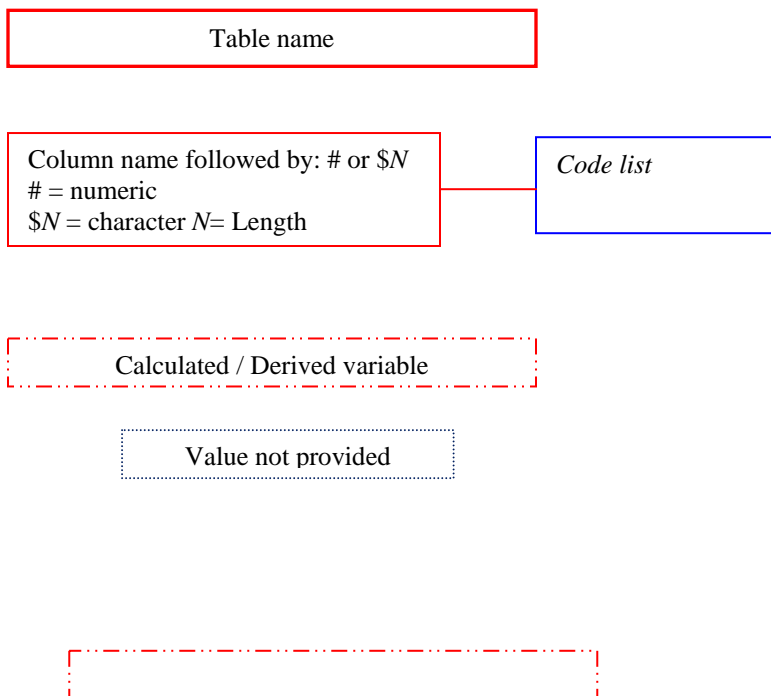
C-Spine Study

PECARN Protocol Number 026

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Annotations key:

Table name

Column name followed by: # or N # = numeric N = character N= Length	*Code list*

Calculated / Derived variable

Value not provided

Notes:

All dates have been recoded to reflect the number of calendar days from emergency department evaluation at the study site.

Sensitive and/or identifying information entered in free text fields has been removed from the public use datasets.

A new masked patient identifier (studysubjectid), site number (site), case ID (caseid), and case/control type indicator (controltype) have been created for the Public Use Datasets and are present in all datasets to facilitate merging. The caseid identifies the case matched to each control.

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Data not provided, forms provided for reference

Case Screening Form

CASE SCREENING SHEET

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Check for Record

Was the medical record for this patient available?
- ◉ Yes
- ○ No

Was the patient evaluated at the HEDA for trauma related injuries?
- ◉ Yes
- ○ No

Inclusion Criteria: Any NO answer means patient is excluded from the case series

Is the patient cervical spine injured? (please see ICD-9 diagnostic codes below)
- ◉ Yes
- ○ No

ICD-9 Diagnostic codes: 805.0-805.19, 805.8-805.9, 806.0-806.19, 806.8-806.9, 839.0-839.18, 839.40, 839.49, 839.50, 839.59, 839.8, 839.9, 952.00-952.09, 952.8, 952.9, 953.0, 954.0, 953.8, 953.9, 954.8, & 954.9)

Did the patient present at the HEDA for evaluation of their injuries prior to their 16th birthday?
- ◉ Yes
- ○ No

Did the patient visit at the HEDA occur between Jan 1, 2000 and Dec 31, 2004?
- ◉ Yes
- ○ No

Was this the first HEDA visit for evaluation of an injury (injuries)? (If this was a return visit for a prior injury, the patient is excluded)
- ◉ Yes
- ○ No

Data not provided, forms provided for reference

Exclusion Criteria (requires chart review): Any YES answer means patient is excluded from the case series

Were the injuries caused by penetrating trauma? (Ex. ICD-9 E-codes: E920, E922)

○ Yes
◉ No

Were the injuries the consequence of medical care or occurred during hospitalization? (Ex. ICD-9 E-codes E870-E876, E878-E879)

○ Yes
◉ No

Was the patient admitted with a presumed diagnosis of cervical spine injury, which was subsequently ruled-out on further evaluation?

○ Yes
◉ No

Was the patient transferred away from the HEDA for definitive diagnosis and care elsewhere OR transferred to the HEDA after definitive diagnosis and care? (see definition below)

○ Yes
◉ No

Definitive care includes stabilization of the injury and acute care. This does not exclude patients whose injuries are stabilized and the patient is transferred for inpatient or outpatient rehabilitation at another institution.

C-Spine Annotated PUD eCRF

EMS Control Screening

EMS CONTROL SCREENING Sheet

| Update Patient | (PI has to cancel his/her signature for you to do updates)   Create New Issue

Check For Record

Was the medical record for this patient available?
- ◉ Yes
- ○ No

Was the patient evaluated at the HEDA for trauma related injuries?
- ◉ Yes
- ○ No

Inclusion Criteria: Any NO answer means patient is excluded from the control series

Was the patient evaluated for cervical spine injury at the HEDA? (please see CPT codes below)
- ◉ Yes
- ○ No

CPT codes: 72040, 72050, 72052, 72125, 72126, 72127,72141, 72142,72156, and 72159

Was the patient free of cervical spine injury at discharge from the HEDA? (Does not carry the ICD-9 Diagnostic codes and did not have a prior CSI diagnosed)
- ◉ Yes
- ○ No

Was this the first HEDA visit for evaluation of an injury (injuries)? (If this was a return visit for a prior injury, the patient is excluded)
- ◉ Yes
- ○ No

Did the patient present at the HEDA for evaluation of their injuries prior to their 16th birthday?
- ◉ Yes
- ○ No

Did the patient visit at the HEDA occur between Jan 1, 2000 and Dec 31, 2004?
- ◉ Yes
- ○ No

Data not provided, forms provided for reference

Exclusion Criteria (requires chart review): Any YES answer means patient is excluded from the control series

Was the patient diagnosed with a cervical spine injury that was not encoded in the ICD-9 billing database?

- ○ Yes
- ◉ No

Were the injuries caused by penetrating trauma? (Ex. ICD-9 E-codes: E920, E922)

- ○ Yes
- ◉ No

Were the injuries the consequence of medical care or occurred during hospitalization? (Ex. ICD-9 E-codes E870-E876, E878-E879)

- ○ Yes
- ◉ No

Was the patient transferred away from the HEDA for definitive diagnosis and care elsewhere OR transferred to the HEDA after definitive diagnosis and care? (see definition below)

- ○ Yes
- ◉ No

Definitive care includes stabilization of the injury and acute care. This does not exclude patients whose injuries are stabilized and the patient is transferred for inpatient or outpatient rehabilitation at another institution.

EMS Control Criteria: Any NO answer means patient is excluded from the control series.

Was the control patient's visit date withing ±1 year of the cases visit date?

- ◉ Yes
- ○ No

Did the control patient's age (at time of visit) match withing ±365 days of the cases age (at time of visit)?

- ◉ Yes
- ○ No

Did the patient arrive by EMS? (Arrival by EMS refers to a primary scene response. If the patient arrived by EMS as an interhospital transfer, answer no to this question)

- ◉ Yes
- ○ No

> Data not provided, forms provided for reference

MOI Control Screening

MOI CONTROL SCREENING SHEET

| Update Patient | Create New Issue

Check for Record

Was the medical record for this patient available?
- ◉ Yes
- ○ No

Was the patient evaluated at the HEDA for trauma related injuries?
- ◉ Yes
- ○ No

Inclusion Criteria: Any NO answer means patient is excluded from the control series

Was the patient evaluated for cervical spine injury at the HEDA? (please see CPT codes below)
- ◉ Yes
- ○ No

CPT codes: 72040, 72050, 72052, 72125, 72126, 72127,72141, 72142,72156, and 72159

Was the patient free of cervical spine injury at discharge from the HEDA? (Does not carry the ICD-9 Diagnostic codes and did not have a prior CSI diagnosed)
- ◉ Yes
- ○ No

Was this the first HEDA visit for evaluation of an injury (injuries)? (If this was a return visit for a prior injury, the patient is excluded)
- ◉ Yes
- ○ No

Did the patient present at the HEDA for evaluation of their injuries prior to their 16th birthday?
- ◉ Yes
- ○ No

Did the patient visit at the HEDA occur between Jan 1, 2000 and Dec 31, 2004?
- ◉ Yes
- ○ No

Exclusion Criteria (requires chart review): Any YES answer means patient is excluded from the control series

Was the patient diagnosed with a cervical spine injury that was not encoded in the ICD-9 billing database?
- ⦿ Yes
- ◯ No

Were the injuries caused by penetrating trauma? (Ex. ICD-9 E-codes: E920, E922)
- ⦿ Yes
- ◯ No

Were the injuries the consequence of medical care or occurred during hospitalization? (Ex. ICD-9 E-codes E870-E876, E878-E879)
- ⦿ Yes
- ◯ No

Was the patient transferred away from the HEDA for definitive diagnosis and care elsewhere OR transferred to the HEDA after definitive diagnosis and care? (see definition below)
- ⦿ Yes
- ◯ No

Definitive care includes stabilization of the injury and acute care. This does not exclude patients whose injuries are stabilized and the patient is transferred for inpatient or outpatient rehabilitation at another institution.

Mechanism of Injury Control Criteria: Any NO answer means patient is excluded from the control series.

Was the control patient's visit date within ±1 year of the cases visit date?
- ⦿ Yes
- ◯ No

Did the control patient's age (at time of visit) match within ±365 days of the cases age (at time of visit)?
- ⦿ Yes
- ◯ No

Did the patient match on mechanism?
- ⦿ Yes
- ◯ No

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> Data not provided, forms provided for reference

Random Control Screening

RANDOM CONTROL SCREENING SHEET

[Update Patient] Create New Issue

Check for Record

Was the medical record for this patient available?
- ◉ Yes
- ○ No

Was the patient evaluated at the HEDA for trauma related injuries?
- ◉ Yes
- ○ No

Inclusion Criteria: Any NO answer means patient is excluded from the control series

Was the patient evaluated for cervical spine injury at the HEDA? (please see CPT codes below)
- ◉ Yes
- ○ No

CPT codes: 72040, 72050, 72052, 72125, 72126, 72127,72141, 72142,72156, and 72159

Was the patient free of cervical spine injury at discharge from the HEDA? (Does not carry the ICD-9 Diagnostic codes and did not have a prior CSI diagnosed)
- ◉ Yes
- ○ No

Was this the first HEDA visit for evaluation of an injury (injuries)? (If this was a return visit for a prior injury, the patient is excluded)
- ◉ Yes
- ○ No

Did the patient present at the HEDA for evaluation of their injuries prior to their 16th birthday?
- ◉ Yes
- ○ No

Did the patient visit at the HEDA occur between Jan 1, 2000 and Dec 31, 2004?
- ◉ Yes
- ○ No

Exclusion Criteria (requires chart review): Any YES answer means patient is excluded from the control series

Was the patient diagnosed with a cervical spine injury that was not encoded in the ICD-9 billing database?

- ○ Yes
- ◉ No

Were the injuries caused by penetrating trauma? (Ex. ICD-9 E-codes: E920, E922)

- ○ Yes
- ◉ No

Were the injuries the consequence of medical care or occurred during hospitalization? (Ex. ICD-9 E-codes E870-E876, E878-E879)

- ○ Yes
- ◉ No

Was the patient transferred away from the HEDA for definitive diagnosis and care elsewhere OR transferred to the HEDA after definitive diagnosis and care? (see definition below)

- ○ Yes
- ◉ No

Definitive care includes stabilization of the injury and acute care. This does not exclude patients whose injuries are stabilized and the patient is transferred for inpatient or outpatient rehabilitation at another institution.

Random Control Criteria: Any NO answer means patient is excluded from the control series.

Was the control patient's visit date within + or - 1 year of the cases visit date?

- ◉ Yes
- ○ No

Data not provided, forms provided for reference

Mechanism of Injury Classification

Mechanism of Injury Classification

Update Patient   (PI has to cancel his/her signature for you to do updates)   Create New Issue

Mechanism of Injury

○ MVC - Occupant

Definition: Occupant of an automobile involved in a motor vehicle crash (MVC) [Ecodes: E810(.0 & .1) - E816(.0 & .1), E819.0 - E819.1, E958.5, & E988.5)]

○ MVC-NON-Vehicle

Definition:
- Occupant/Rider of a non-automobile but motorized vehicle (e.g., motorcycle, ATV, 4-Wheeler, etc) involved in a crash [E-codes: E810 (.2 & .3) - E816(.2 & .3),E819 (.2 & .3), E820(.0 -.3)-E823(.0-.3), & E846)]
- Others (non-occupant, non-pedestrian, and non-bicyclist) involved in MVC or undocumented involvement (e.g., patient was not documented as an occupant, pedestrian or bicyclist) [E-codes: E810(.4,.5,.8, & .9) - E816(.4,.5,.8, & .9), E817(.1-.9), E824-E825.9, & E819(.4,.5,.8, & .9) - E823(.4,.5,.8, & .9)]
- Pedestrian struck by moving vehicle [E-codes: E810(.7) - E816(.7), E819(.7)-E823(.7), E826.0 ,E958.0, E968.5, & E988.0]
- Bicyclist or non-motorized vehicle (e.g., scooter, skateboard, etc.) struck by moving vehicle [Ecodes: E810(.6) - E816(.6),E819(.6)-E823(.6)].
- Riders of animal struck by moving vehicles [Ecodes: E810(.5)-E819(.5), E820(.5)-E825(.5)].

○ FALL

Definition:
- Fall from elevation, down stairs, from standing/walking/running or a diving injury [E-codes: E833(.0 & .1) - E834(.0 & .1), E843(.0-.9), E880-E884.9, E885.9, E886.9, E888 (.0-.9), E957, E968.1, & E987].
- Fall from bike while riding or bike rider colliding with a stationary object [E826.1, E826.8 & E826.9].
- Fall during a sporting activity [E-codes: E885.1-E885.4, or E886.0].
- Thrown or fall from animal being ridden [E828 (.2, .8, .9)]

◉ OTHER [_____]

Definition:
- SPORTS: Injury occurred in sports [E-codes: E917.0, & E917.5].
- BLUNT TRAUMA: Injury involved 'clothes lining'(i.e., struck in neck with rope/cable or similar item while in moving/riding), assault, or being stuck by object or person [E-codes: E960.0-E960.1, E967.0-E967.9, E968.2, E916, E917.1-E917.4, E917.6-E917.9, & E918-E919].
- All other injuries involving animals [E827, E828 (.0 & .4, .9) & E906)]
- Hanging [E-codes: E953.0, E963 & E983.0]
- Mechanisms of injuries not already classified

demographics (1 of 2)

Demographics

site #

caseid $7

controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

DEMOGRAPHICS

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Date of birth(format: mm/dd/yyyy):
(format: mm/dd/yyyy):   AgeInYears #

Gender
○ Female   Gender $2
○ Male
○ Not Documented

M = Male
F = Female
ND = Not Documented

Race
○ White
○ Black
○ Asian
○ American Indian/Alaskan Native
○ Pacific Islander   Race $2
○ Other   Value not provided
○ Not Documented

W = White
B = Black
A = Asian
AI = American Indian / Alaskan Native
PI = Pacific Islander
O = Other
ND = Not Documented

Ethnicity
○ Hispanic   Ethnicity $2
○ Non-Hispanic
○ Other   Value not provided
○ Not documented

H = Hispanic
NH = Non-Hispanic
O = Other
ND = Not Documented

demographics (2 of 2)

Payor

PayorType $2 ——————————————————— CH = Champus/Tricare/Military Insurance
CI = Commercial Insurance
OG = Other Government
○ Champus/Tricare/Military Insurance SU = Self/uninsured
◉ Commercial Insurance WC = Workman's Compensation
  ○ Fee for service MA = Medicaid
  ◉ Managed care PayorTypeCI $3 ——— FEE = Fee for service ND = Not Documented
  ○ Not documented MC = Managed care
○ Other Government   Value not provided ND = Not Documented

○ Self/uninsured
○ Workman`s Compensation
○ Medicaid
  ○ Fee for service
  ○ Managed care PayorTypeMA $3 ——— FEE = Fee for service
  ○ Not documented MC = Managed care
○ Not documented ND = Not Documented

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clinicalpresentationfield (1 of 10)

Clinical Presentation In The Field

site #

caseid $7

studysubjectid $7

controltype $4

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

CLINICAL PRESENTATION IN THE FIELD

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Field Documentation

FieldDocumentation $3

- ● Patient was transported by EMS from the scene and the record is available
- ○ Patient was not transported by EMS from the scene
- ○ Patient was transported from the scene by EMS, but the record is not available

EMS = Patient was transported by EMS from the scene and the record is available

OTR = Patient was not transported by EMS from the scene

NR = Patient was transported from the scene by EMS, but the record is not available

ALL information in the Field Section must come from field documentation (EMS Run Sheet) not the hospital records. Please make sure that the EMS run sheet you are abstracting represents the scene (primary) response and not an interhospital transfer.

Date of EMS arrival at scene:
(Format: mm/dd/yyyy):

EMSArrivalDate #

☐ Not documented

EMSArrivalDateND #

1 = Checked
0 = Not Checked

Time of arrival at scene:
(Format: HH:MM):

EMSArrivalTime $5

☐ Exact time not documented
(If checked attempt to estimate time of arrival)
Estimated time of arrival at scene

EMSArrivalTimeND #

1 = Checked
0 = Not Checked

- ○ 00:01 - 04:00
- ○ 04:01 - 08:00
- ○ 08:01 - 12:00
- ○ 12:01 - 16:00
- ○ 16:01 - 20:00
- ○ 20:01 - 00:00
- ○ Unable to estimate

EMSEstimateTime $1

1 = 00:01 - 04:00
2 = 04:01 - 08:00
3 = 08:01 - 12:00
4 = 12:01 - 16:00
5 = 16:01 - 20:00
6 = 20:01 - 00:00
7 = Unable to estimate

Was patient ambulatory prior to EMS arrival?
- ○ Yes
- ○ No
- ○ Pre-ambulatory/Non-ambulatory
- ○ Not documented

PtAmbulatoryPriorEMSArrival $2

Y = Yes
N = No
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

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clinicalpresentationfield (2 of 10)

What was patient`s position on EMS arrival?

○ Sitting
○ Walking/standing
○ Lying down
○ Immobilized prior to EMS transport crew arrival
○ Pre-ambulatory/Non-ambulatory
○ Not documented

PatientsPosition $5

S = Sitting
W = Walking/standing
L = Lying down
IDEMS = Immobilized prior to EMS transport crew arrival
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

Was there history of loss of consciousness (LOC)?

○ Yes
○ No
○ Suspected, but not sure
○ Unknown
○ Not documented

HxLOC $2

Y = Yes
N = No
S = Suspected, but not sure
U = Unknown
ND = Not documented

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clinicalpresentationfield (3 of 10)

Glasgow Coma Score

Is a Glasgow Coma Score (GCS) documented?

○ Section Scores (Eye, Verbal, Motor) not documented

SectionGCSAvailable $2 → Y = Yes / ND = Not documented

   ○ Total GCS available

   Total GCS: [_____] TotalGCSManual $2

   ○ Total GCS not documented TotalGCSAvailable $2 → Y = Yes / ND = Not documented

● Section Scores (Eye, Verbal, Motor) documented

Indicate the score for Eye, Verbal, Motor if present in the record

Eye

   ○ Spontaneous

   ○ Verbal   GCSEye $1

   ○ Pain

   ○ None

GCSEye $1:
- 4 = Spontaneous
- 3 = Verbal
- 2 = Pain
- 1 = None

Verbal

   ○ Oriented - coos/babbles

   ○ Confused - irritable/cries

   ○ Inappropriate words - cries to pain   VerbalGCS $1

   ○ Incomprehensible sounds - moans

   ○ None

VerbalGCS $1:
- 5 = Oriented - coos/babbles
- 4 = Confused - irritable/cries
- 3 = Inappropriate words - cries to pain
- 2 = Incomprehensible sounds - moans
- 1 = None

Motor

   ○ Follow Commands

   ○ Localizes pain [withdraws to touch]

   ○ Withdraws to pain   MotorGCS $1

   ○ Abnormal flexure posturing

   ○ Abnormal extension posturing

   ○ None

MotorGCS $1:
- 6 = Follow Commands
- 5 = Localizes pain [withdraws to touch]
- 4 = Withdraws to pain
- 3 = Abnormal flexure posturing
- 2 = Abnormal extension posturing
- 1 = None

Calculated Total GCS: [_____] TotalGCS $2

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Mental Status

Is there documentation of the patient`s mental status using a narrative description or an AVPU category?

- ◉ Yes   **AVPU $1** ———— Y = Yes / N = No
- ○ No

   If yes, check the statement which best describes the patient`s mental status

- ○ (A)The patient was described as being awake or alert or oriented.
- ○ (V)The patient was described as responsive to verbal stimuli.
- ○ (P)The patient was described as responsive to pain.   **AVPUDetails $1**
- ○ (U)The patient was described as unresponsive to pain.
- ◉ Term used that cannot be mapped to AVPU
  - ○ Comatose
  - ○ Obtunded   **AVPUMental $3**
  - ○ Unconscious
  - ○ Other [_____]

    AVPUMentaltxt $97

AVPUMental $3:
- C = Comatose
- OB = Obtunded
- U = Unconscious
- OTH = Other

AVPUDetails $1:

A = (A)The patient was described as being awake or alert or oriented.

V = (V)The patient was described as responsive to verbal stimuli.

P = (P)The patient was described as responsive to pain.

U = (U)The patient was described as unresponsive to pain.

N = Term used that cannot be mapped to AVPU

Derived variable included in the clinicalpresentationfield dataset:

Variable	Type	Length	Label	Values	Details
AVPUMentaltxtCat	$	20	Other Term used that cannot be mapped to AVPU (Categorized)	ALTERED UNALTERED	Open text entered into the AVPUMentaltxt field was independently reviewed by three study investigators. They each categorized the response as ALTERED or UNALTERED. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

Clinical Interview and Exam

Did the patient complain of pain?

○ Yes and the regions of the body affected are documented
○ Yes and the regions of body affected are NOT documented
○ No
○ Preverbal / Nonverbal
○ Not applicable
○ Not documented

PtCompPain $3

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
P = Preverbal / Nonverbal
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

☐ Head
☐ Face
☐ Neck

PtCompPainHead #
PtCompPainFace #
PtCompPainNeck #

1 = Checked
0 = Not Checked

If neck pain was indicated, did the pain increase with neck movement?

○ Yes
○ No
○ Not documented

PtCompPainNeckMove $2

Y = Yes
N = No
ND = Not documented

☐ Chest
☐ Back
☐ Flank
☐ Abdomen
☐ Pelvis
☐ Extremities

PtCompPainChest #
PtCompPainBack #
PtCompPainFlank #
PtCompPainAbd #
PtCompPainPelvis #
PtCompPainExt #

1 = Checked
0 = Not Checked

Did the patient have tenderness on exam?

- ○ Yes and the regions of the body affected are documented
- ○ Yes and the regions of body affected are NOT documented
- ○ No
- ○ Not Applicable
- ○ Not Documented

PtTender $3

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

- ☐ Head
- ☐ Face
- ☐ Neck

PtTenderHead #
PtTenderFace #
PtTenderNeck #

1 = Checked
0 = Not Checked

If checked, please check all descriptors that apply:

- ☐ Anterior
- ☐ Posterior
- ☐ Lateral
- ☐ Midline
- ☐ Level
  - ☐ C1
  - ☐ C2
  - ☐ C3
  - ☐ C4
  - ☐ C5
  - ☐ C6
  - ☐ C7
- ☐ Other

PtTenderNeckAnt #
PtTenderNeckPos #
PtTenderNeckLat #
PtTenderNeckMid #
PtTenderLevel #

1 = Checked
0 = Not Checked

PtTenderNeckLevelC1 #
PtTenderNeckLevelC2 #
PtTenderNeckLevelC3 #
PtTenderNeckLevelC4 #
PtTenderNeckLevelC5 #
PtTenderNeckLevelC6 #
PtTenderNeckLevelC7 #

1 = Checked
0 = Not Checked

PtTenderOther #

1 = Checked
0 = Not Checked

PtTenderOthertxt $22

Derived variable included in the clinicalpresentationfield dataset:

Variable	Type	Length	Label	Values	Details
PtTenderNeckOtherTxtCat	$	3	Other neck tenderness deemed consistent with posterior midline neck tenderness by consensus panel	YES, Missing	Three study investigators independently reviewed open text entered into the PtTenderOthertxt and flagged responses that they considered consistent with posterior midline neck tenderness. Discrepancies were discussed and consensus reached, with YES identifying those that were consistent with the definition.

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☐ Chest
☐ Back
☐ Flank
☐ Abdomen
☐ Pelvis
☐ Extremities

| PtTenderChest # |
| PtTenderBack # |
| PtTenderFlank # |
| PtTenderAbd # |
| PtTenderPelvis # |
| PtTenderExt # |

1 = Checked
0 = Not Checked

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Did the patient have limited range of motion of the neck or tortocollis?
- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ○ C-collar in place
- ○ Not applicable
- ○ Not documented

LimitedRangeMotion $2

Y = Yes and the regions of the body affected are documented
N = No
SP = Sedated or paralyzed
CC = C-collar in place
NA = Not applicable
ND = Not documented

Aside from tenderness on exam, was there any other clinical evidence of substantial injuries?
- ○ Yes
- ○ No
- ○ Not documented

OtherInjuries $2

Y = Yes
N = No
ND = Not documented

If yes, check all affected regions of the body:
- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

OtherInjuriesHead #
OtherInjuriesFace #
OtherInjuriesNeck #
OtherInjuriesChest #
OtherInjuriesBack #
OtherInjuriesFlank #
OtherInjuriesAbd #
OtherInjuriesPelvis
OtherInjuriesExtr #

1 = Checked
0 = Not Checked

Aside from tenderness on exam, was there any other clinical evidence of minor injuries?
- ○ Yes
- ○ No
- ○ Not Documented

MinorInjuriesList $2

Y = Yes
N = No
ND = Not documented

If yes, check all affected regions of the body:
- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

MinorInjuriesHead
MinorInjuriesFace #
MinorInjuriesNeck
MinorInjuriesChest
MinorInjuriesBack #
MinorInjuriesFlank
MinorInjuriesAbs #
MinorInjuriesPel #
MinorInjuriesExt #

1 = Checked
0 = Not Checked

Neurological Exam

Did the patient have any paresthesias (abnormal tactile sensation)?
- ○ Yes
- ○ No
- ○ Not applicable
- ○ Not documented

PtParesthesias $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

Did the patient have any loss of sensation (loss of feeling in any region of body)?
- ○ Yes
- ○ No
- ○ Not applicable
- ○ Not documented

PtSensoryLoss $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

Did the patient have any extremity weakness?
- ○ Yes
- ○ No
- ○ Not applicable
- ○ Not documented

PtExtremityWeakness $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

Did the patient have a neurological deficit other than paresthesias, loss of sensation or extremity weakness?
- ○ Yes
- ○ No
- ○ Not Applicable
- ○ Not Documented

OtherNeuroDeficit $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

If yes, please describe the neurological deficit: _____

OtherNeuroDeficitDesc $100

Derived variable included in the clinicalpresentationfield dataset:

Variable	Type	Length	Label	Values	Details
OtherNeuroDeficitDescCat	$	3	Other neurologic finding deemed consistent with spine injury by consensus panel	YES NO	Open text entered into the OtherNeuroDeficitDesc field was independently reviewed by three study investigators. Each response was categorized as YES or NO other neurological finding consistent with spine injury. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

C-Spine Annotated PUD eCRF

Clinical Interventions in the Field

Please indicate all interventions that occurred in the field prior to transport to an ED.

Is there documentation that cervical spine precautions were implemented by EMS?

- ○ Yes and specific precautions documented   CervicalSpinePrecautions $3
- ○ Yes but specific precautions were not documented
- ○ No

Y = Yes and specific precautions documented
YND = Yes but specific precautions were not documented
N = No

If yes, please indicate all cervical spine precautions:

- ☐ Cervical Collar   CervicalSpinePrecautionsCC #
- ☐ Rigid long board   CervicalSpinePrecautionsRLB #
- ☐ Other method of cervical spine immobilization   CervicalSpinePrecautionsOther #

1 = Checked
0 = Not Checked

CervicalSpinePrecautionsOthertxt $83

Is there documentation that medications were given by EMS?

- ○ Yes   MedsbyEMS $1
- ○ No

Y = Yes
N = No

If yes, indicate all medications given

- ☐ Analgesics   MedsGivenAna #
- ☐ Glucocorticoids   MedsGivenGlu #
- ☐ Paralytics   MedsGivenPar #
- ☐ Sedatives   MedsGivenSed #
- ☐ Other ___   MedsGivenOthertxt $40   MedsGivenOther #

1 = Checked
0 = Not Checked

Is there documentation that the patient was intubated by EMS?

- ○ Yes   IntubatedbyEMS $2
- ○ Intubation attempted but unsuccessful
- ○ No

Y = Yes
IU = Intubation attempted but unsuccessful
N = No

clinicalpresentationoutside (1 of 12)

Clinical Presentation at an Outside ED

site #

caseid $7

controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

CLINICAL PRESENTATION AT AN OUTSIDE HOSPITAL EMERGENCY DEPARTMENT

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Outside Hospital Emergency Department (ED) Documentation

- ● Patient was evaluated at an outside hospital emergency department (ED) prior to study site, and the record is available
- ○ Patient presented at an outside hospital ED, but the record is unavailable
- ○ Patient presented directly to the study site

EDDocumentation $4

ALL information in the outside ED section must come form the outside ED documentation not the EMS run sheet or the study site medical record.

ED = Patient was evaluated at an outside hospital emergency department (ED) prior to study site, and the record is available

EDU = Patient presented at an outside hospital ED, but the record is unavailable

SITE = Patient presented directly to the study site

Date of Arrival:
(Format: mm/dd/yyyy):

EDArrivalDate #

☑ Not documented

EDArrivalDateND #

1 = Checked
0 = Not Checked

Time of Arrival:
(Format: HH:MM):

EDArrivalTime $5

☑ Not documented

EDArrivalTimeND #

1 = Checked
0 = Not Checked

Mode of Arrival to outside hospital
- ○ EMS
- ● Non-EMS
- ○ Not documented

ModeArrivalOutsideHospital $4

EMS = EMS
NEMS = Non-EMS
ND = Not documented

On arrival to the outside ED was the patient ambulatory?
- ○ Yes
- ● No
- ○ Pre-ambulatory/Non-ambulatory
- ○ Not documented

PtAmbulatoryPriorArrival $2

Y = Yes
N = No
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

C-Spine Annotated PUD eCRF

YD = Yes and specific precautions were documented.

YND = Yes but specific precautions were not documented.

N = No

Does the outside hospital ED record document that cervical precautions were implemented prior to arrival?

- ○ Yes and specific precautions were documented.
- ○ Yes but specific precautions were not documented.
- ● No

CervicalSpineImmobilization $3

If yes, indicate all cervical spine precautions:
- ☐ Cervical Collar
- ☐ Rigid long board
- ☐ Other method of C-Spine Immobilization

CervicalSpineIntervCC #
CervicalSpineIntervRLB #
CervicalSpineIntervOther #

1 = Checked
0 = Not Checked

CervicalSpineIntervOthertxt $82

Does the outside ED record document that the patient received medications prior to arrival?

- ○ Yes
- ● No

MedsRecdPriorArrival $1

Y = Yes
N = No

If yes, indicate all medications given:
- ☐ Analgesics
- ☐ Glucocorticoids
- ☐ Paralytics
- ☐ Sedatives
- ☐ Other

MedsRecdOthtxt $31

MedsRecdAna #
MedsRecdGlu #
MedsRecdPar #
MedsRecdSed #
MedsRecdOth #

1 = Checked
0 = Not Checked

clinicalpresentationoutside (3 of 12)

Does the outside hospital ED record document that the patient was intubated prior to arrival?

- ○ Yes
- ◉ No

ArrPtIntub $1

Y = Yes
N = No

Was there history of loss of consciousness (LOC)?

- ○ Yes
- ○ No
- ◉ Suspected - but not sure
- ○ Unknown
- ○ Not Documented

HxLOC $2

Y = Yes
N = No
S = Suspected, but not sure
U = Unknown
ND = Not documented

Glasgow Coma Score

Is a Glasgow Coma Score (GCS) documented?

○ Section Scores (Eye, Verbal, Motor) not documented

SectionGCSAvailable $2

Y = Yes
ND = Not documented

    ○ Total GCS available

        Total GCS: [　　　　]   TotalGCSManual $2

    ○ Total GCS not documented   TotalGCSAvailable $2

Y = Yes
ND = Not documented

⦿ Section scores (Eye, Verbal, Motor) documented

    Indicate the score for Eye, Verbal, Motor if present in the record

    Eye

        ○ Spontaneous

        ○ Verbal

        ○ Pain   GCSEye $1

        ○ None

4 = Spontaneous
3 = Verbal
2 = Pain
1 = None

    Verbal

        ○ Oriented - coos/babbles

        ○ Confused - irritable/cries

        ○ Inappropriate words - cries to pain   VerbalGCS $1

        ○ Incomprehensible sounds - moans

        ○ None

5 = Oriented - coos/babbles
4 = Confused - irritable/cries
3 = Inappropriate words - cries to pain
2 = Incomprehensible sounds - moans
1 = None

    Motor

        ○ Follow Commands

        ○ Localizes pain - withdraws to touch

        ○ Withdraws to pain   MotorGCS $1

        ○ Abnormal flexure posturing

        ○ Abnormal extension posturing

        ○ None

6 = Follow Commands
5 = Localizes pain [withdraws to touch]
4 = Withdraws to pain
3 = Abnormal flexure posturing
2 = Abnormal extension posturing
1 = None

    Calculated Total GCS: [　　　　]

TotalGCS $2

clinicalpresentationoutside (5 of 12)

Mental Status

Is there documentation of the patient`s mental status using a narrative description or an AVPU category?

⦿ Yes   AVPU $1

○ No

   Y = Yes
   N = No

If yes, check the statement which best describes the patient`s mental status

  ○ (A) The patient was described as being awake or alert or oriented.

  ○ (V)The patient was described as responsive to verbal stimuli

  ○ (P)The patient was described as responsive to pain.

  ○ (U)The patient was descibed as unresponsive to pain.

  ⦿ Term used that cannot be mapped to AVPU

    ○ Comatose

    ○ Obtunded

    ○ Unconscious

    ○ Other [_____]

AVPUDetails $1

AVPUMental $3

AVPUMentaltxt $100

C = Comatose
OB = Obtunded
U = Unconscious
OTH = Other

A = (A)The patient was described as being awake or alert or oriented.

V = (V)The patient was described as responsive to verbal stimuli.

P = (P)The patient was described as responsive to pain.

U = (U)The patient was described as unresponsive to pain.

N = Term used that cannot be mapped to AVPU

Derived variable included in the clinicalpresentationoutside dataset:

Variable	Type	Length	Label	Values	Details
AVPUMentaltxtCat	$	9	Other Term used that cannot be mapped to AVPU (Categorized)	ALTERED UNALTERED	Open text entered into the AVPUMentaltxt field was independently reviewed by three study investigators. They each categorized the response as ALTERED or UNALTERED. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

C-Spine Annotated PUD eCRF

Clinical Interview and Exam

Did the patient complain of pain?

PtCompPain $3

- ◉ Yes and the regions of the body affected are documented
- ○ Yes and the regions of body affected are NOT documented
- ○ No
- ○ Preverbal/Nonverbal
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
P = Preverbal / Nonverbal
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

- ☐ Head — PtCompPainHead #
- ☐ Face — PtCompPainFace #
- ☑ Neck — PtCompPainNeck #

1 = Checked
0 = Not Checked

If neck pain was indicated, did the pain increase with neck movement?

- ○ Yes
- ○ No
- ○ Not documented

PtCompPainNeckMove $2

Y = Yes
N = No
ND = Not documented

- ☐ Chest — PtCompPainChest #
- ☐ Back — PtCompPainBack #
- ☐ Flank — PtCompPainFlank #
- ☐ Abdomen — PtCompPainAbd #
- ☐ Pelvis — PtCompPainPelvis #
- ☐ Extremities — PtCompPainExt #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

Did the patient have tenderness on exam?
- ◉ Yes and the regions of the body affected are documented
- ○ Yes and the regions of body affected are NOT documented
- ○ No
- ○ Sedated / paralyzed
- ○ Not applicable
- ○ Not documented

PtTender $3

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
S = Sedated / paralyzed
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:
- ☐ Head — PtTenderHead #
- ☐ Face — PtTenderFace #
- ☑ Neck — PtTenderNeck #

1 = Checked
0 = Not Checked

If checked, please check all descriptors that apply:
- ☐ Anterior — PtTenderNeckAnt #
- ☐ Posterior — PtTenderNeckPos #
- ☐ Lateral — PtTenderNeckLat #
- ☐ Midline — PtTenderNeckMid #
- ☑ Level — PtTenderNeckLevel #

1 = Checked
0 = Not Checked

- ☐ C1 — PtTenderNeckLevelC1 #
- ☐ C2 — PtTenderNeckLevelC2 #
- ☐ C3 — PtTenderNeckLevelC3 #
- ☐ C4 — PtTenderNeckLevelC4 #
- ☐ C5 — PtTenderNeckLevelC5 #
- ☐ C6 — PtTenderNeckLevelC6 #
- ☐ C7 — PtTenderNeckLevelC7 #

1 = Checked
0 = Not Checked

- ☐ Other — PtTenderNeckLevelOther #
  PtTenderNeckLevelOthertxt $73

1 = Checked
0 = Not Checked

Derived variable included in the clinicalpresentationoutside dataset:

Variable	Type	Length	Label	Values	Details
PtTenderNeckOtherTxtCat	$	3	Other neck tenderness findings deemed consistent with posterior midline neck tenderness by consensus panel	YES Missing	Three study investigators independently reviewed open text entered into the PtTenderNeckLevelOthertxt and flagged responses that they considered consistent with posterior midline neck tenderness. Discrepancies were discussed and consensus reached, with YES identifying those that were consistent with the definition.

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (8 of 12)

☐ Chest

☐ Back

☐ Flank

☐ Abdomen

☐ Pelvis

☐ Extremities

PtTenderChest #

PtTenderBack #

PtTenderFlank #

PtTenderAbd #

PtTenderPelvis #

PtTenderExt #

1 = Checked
0 = Not Checked

Did the patient have limited range of motion of the neck or torticollis?
- ○ Yes
- ◉ No
- ○ Sedated or paralyzed
- ○ C-collar in place
- ○ Not applicable
- ○ Not documented

LimitedRangeMotion $2

Y = Yes and the regions of the body affected are documented
N = No
SP = Sedated or paralyzed
CC = C-collar in place
NA = Not applicable
ND = Not documented

Aside from tenderness on exam, was there any other clinical evidence of substantial injuries?
- ◉ Yes
- ○ No
- ○ Not documented

    If yes, check all affected regions of the body:
- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

OtherInjuries $2

Y = Yes
N = No
ND = Not documented

OtherInjuriesHead #
OtherInjuriesFace #
OtherInjuriesNeck #
OtherInjuriesChest #
OtherInjuriesBack #
OtherInjuriesFlank #
OtherInjuriesAbd #
OtherInjuriesPelvis #
OtherInjuriesExt #

1 = Checked
0 = Not Checked

Aside from tenderness on exam, was there any other clinical evidence of minor injuries?
- ◉ Yes
- ○ No
- ○ Not Documented

    If yes check all affected regions of the body:
- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

MinorInjuries $2

Y = Yes
N = No
ND = Not documented

MinorInjuriesHead
MinorInjuriesFace #
MinorInjuriesNeck
MinorInjuriesChest
MinorInjuriesBack #
MinorInjuriesFlank
MinorInjuriesAbs #
MinorInjuriesPelvis #
MinorInjuriesExt #

1 = Checked
0 = Not Checked

clinicalpresentationoutside (10 of 12)

Neurological Examination

Did the patient have any paresthesias (abnormal tactile sensation)?
- ○ Yes
- ◉ No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtParesthesias $2

Y = Yes
N = No
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have any loss of sensation (loss of feeling in any region of body)?
- ○ Yes
- ◉ No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtSensoryLoss $2

Y = Yes
N = No
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have any extremity weakness?
- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ◉ Not applicable
- ○ Not documented

PtExtremityWeakness $2

Y = Yes
N = No
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have a neurological deficit other than paresthesias, loss of sensation or extremity weakness?
- ◉ Yes
- ○ No
- ○ Not Applicable
- ○ Not Documented

OtherNeuroDeficit $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

If yes, please describe the neurological deficit: _____

OtherNeuroDeficitDesc $198

Derived variable included in the clinicalpresentationoutside dataset:

Variable	Type	Length	Label	Values	Details
OtherNeuroDeficitDescCat	$	3	Other neurologic finding deemed consistent with spine injury by consensus panel	YES NO	Open text entered into the OtherNeuroDeficitDesc field was independently reviewed by three study investigators. Each response was categorized as YES or NO other neurological finding consistent with spine injury. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

C-Spine Annotated PUD eCRF

Clinical Interventions in the outside hospital ED

Is there documentation that cervical spine precautions were in place when the patient left the ED?

- Yes and specific precautions were documented
- Yes but specific precautions were not documented.
- No

CervicalSpinePrecautions $3

YD = Yes and specific precautions documented
YND = Yes but specific precautions were not documented
N = No

If Yes, indicate all cervical spine precautions:
- Cervical Collar
- Rigid long board
- Other method of cervical spine immobilization

CervicalSpinePrecautionsCC #
CervicalSpinePrecautionsRLB #
CervicalSpinePrecautionsOther #

1 = Checked
0 = Not Checked

CervicalSpinePrecautionsOthertxt $49

Is there documentation that medications were given in the outside hospital ED?

- Yes
- No

MedsbyED $1

Y = Yes
N = No

If yes, indicate all medications given
- Analgesics
- Glucocorticoids
- Paralytics
- Sedatives
- Other

MedsGivenAna #
MedsGivenGlu #
MedsGivenPar #
MedsGivenSed #
MedsGivenOther #

1 = Checked
0 = Not Checked

MedsGivenOthertxt $81

C-Spine Annotated PUD eCRF

Is there documentation that the patient was intubated in the ED?

- ◉ Yes
- ○ Intubation continued
- ○ Extubated
- ○ No

IntubatedED $2

Y = Yes
IC = Intubation continued
E = Extubated
N = No

What was outside hospital ED Disposition?

- ○ Home
- ◉ Admit - ICU
- ○ Admit - general inpatient
- ○ Admit - short stay - < 24 hour - observation unit
- ○ OR
- ○ Transferred to   Value not provided

OutsideEDDisposition $3

H = Home
ICU = Admit - ICU
IPT = Admit - general inpatient
OBS = Admit - short stay - < 24 hour - observation unit
OR = OR
T = Transferred to

clinicalpresentationsite (1 of 13)

Clinical Presentation at the Study Site

site #

caseid $7

controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

CLINICAL PRESENTATION AT THE STUDY SITE

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

ALL information in the study site section must come form the study site documentation not the EMS run sheet or the oustide hospital ED record. Please refer to your site-specific source hierarchy for optimal source for each data element.

Date of Arrival:
(Format: mm/dd/yyyy):

ArrivalDate #

☐ Not documented

Time of Arrival:
(Format: HH:MM):

ArrivalTime $5

☐ Not documented

ArrivalTimeND #

1 = Checked
0 = Not Checked

Mode of Arrival
◉ EMS
○ Non-EMS
○ Not documented

ModeArrival $2

1 = EMS
2 = Non-EMS
ND = Not documented

Was patient received in transfer from another hospital?
◉ Yes
○ No

ReceivedInTransfer $1

Y = Yes
N = No

Did patient come with a diagnosis or suspicion of C-spine injury?
◉ Yes
○ No

DxCspineInjury $1

Y = Yes
N = No

Where was the patient initially evaluated at the study site?
○ ED
○ ICU
○ General floor
○ Outpatient Clinic
◉ Other home

LocEvalPhysician $1

1 = ED
2 = ICU
3 = General floor
4 = Outpatient Clinic
5 = Other

LocEvalPhysiciantxt $18

clinicalpresentationsite (2 of 13)

On arrival to the study site was the patient ambulatory?
- ◉ Yes
- ◯ No

PtAmbulatoryPriorArrival $2

Y = Yes
N = No
3 = Pre-ambulatory/Non-ambulatory
ND = Not documented

- ◯ Pre-ambulatory/Non-ambulatory
- ◯ Not documented

Does the study site medical record document that cervical spine precautions were implemented prior to arrival?
- ◉ Yes and specific precautions were documented
- ◯ Yes but specific precautions were not documented.
- ◯ No

CervicalSpineImmobilization $1

1 = Yes and specific precautions were documented

2 = Yes but specific precautions were not documented.

3 = No

If yes, indicate all cervical spine precautions:
- ☐ Cervical Collar
- ☐ Rigid long board
- ☑ Other method of cervical spine immobilization trucks

CervicalSpineIntervCC #
CervicalSpineIntervRLB #
CervicalSpineIntervOther #

CervicalSpineIntervOthertxt $92

1 = Checked
0 = Not Checked

clinicalpresentationsite (3 of 13)

Does the study site medical record document that the patient received medications prior to arrival?

- ◉ Yes   MedsRecdPriorArrival $1   Y = Yes / N = No
- ◯ No

If yes, please indicate all medications given:

- ☐ Analgesics   MedsRecdAna #
- ☐ Glucocorticoids   MedsRecdGlu #
- ☐ Paralytics   MedsRecdPar #
- ☐ Sedatives   MedsRecdSed #
- ☑ Other - please specify   MedsRecdOR #

1 = Checked
0 = Not Checked

MedsRecdORtxt $80

Does the study site medical record document that the patient was intubated prior to arrival?

- ◉ Yes   ArrPtIntub $1   Y = Yes / N = No
- ◯ No

Was there history of loss of consciousness - LOC?

- ◯ Yes
- ◉ No
- ◯ Suspected - but not sure
- ◯ Unknown
- ◯ Not documented

HxLOC $2

Y = Yes
N = No
3 = Suspected - but not sure
U = Unknown
ND = Not documented

Glasgow Coma Score

Is a Glasgow Coma Score (GCS) documented?

SectionGCSAvailable $2

Y = Yes
ND = Not documented

○ Section Scores (Eye, Verbal, Motor) not documented

○ Total GCS available

Total GCS: [＿＿＿＿] TotalGCSManual $4

○ Total GCS not documented TotalGCSAvailable $4

Y = Yes
ND = Not documented

● Section scores (Eye, Verbal, Motor) documented

Indicate the score for Eye, Verbal, Motor if present in the record

Eye
○ Spontaneous
○ Verbal GCSEye $4
○ Pain
○ None

4 = Spontaneous
3 = Verbal
2 = Pain
1 = None

Verbal
○ Oriented - coos/babbles
○ Confused - irritable/cries
○ Inappropriate words - cries to pain VerbalGCS $4
○ Incomprehensible sounds - moans
○ None

5 = Oriented - coos/babbles
4 = Confused - irritable/cries
3 = Inappropriate words - cries to pain
2 = Incomprehensible sounds - moans
1 = None

Motor
○ Follow Commands
○ Localizes pain - withdraws to touch
○ Withdraws to pain MotorGCS $4
○ Abnormal flexure posturing
○ Abnormal extension posturing
○ None

6 = Follow Commands
5 = Localizes pain [withdraws to touch]
4 = Withdraws to pain
3 = Abnormal flexure posturing
2 = Abnormal extension posturing
1 = None

Calculated Total GCS: [＿＿＿＿]

TotalGCS $4

Mental Status

Is there documentation of the patient`s mental status using a narrative description or an AVPU category?

⦿ Yes   AVPU $1

○ No

Y = Yes
N = No

If yes, check the statement which best describes the patient`s mental status

○ (A) The patient was described as being awake or alert or oriented.

○ (V)The patient was described as responsive to verbal stimuli.

○ (P)The patient was described as responsive to pain.   AVPUDetails $4

○ (U)The patient was descibed as unresponsive to pain.

⦿ Term used that cannot be mapped to AVPU

   ○ Comatose

   ○ Obtunded   AVPUMental $4

   ○ Unconscious

   ○ Other [   ]

AVPUMentaltxt $91

C = Comatose
OB = Obtunded
U = Unconscious
OTH = Other

A = (A)The patient was described as being awake or alert or oriented.

V = (V)The patient was described as responsive to verbal stimuli.

P = (P)The patient was described as responsive to pain.

U = (U)The patient was described as unresponsive to pain.

N = Term used that cannot be mapped to AVPU

Derived variable included in the clinicalpresentationsite dataset:

Variable	Type	Length	Label	Values	Details
AVPUMentaltxtCat	$	9	Other Term used that cannot be mapped to AVPU (Categorized)	ALTERED UNALTERED	Open text entered into the AVPUMentaltxt field was independently reviewed by three study investigators. They each categorized the response as ALTERED or UNALTERED. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

Clinical Interview and Exam

Did the patient complain of pain?

PtCompPain $3

- ● Yes and the regions of the body affected are documented
- ○ Yes and the regions of body affected are NOT documented
- ○ No

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
P = Preverbal / Nonverbal
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

- ○ Preverbal/Nonverbal
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtCompPainHead #
PtCompPainFace #
PtCompPainNeck #

1 = Checked
0 = Not Checked

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

- ☐ Head
- ☐ Face
- ☑ Neck

  If neck pain was indicated, did the pain increase with neck movement?

  - ○ Yes
  - ○ No
  - ○ Not documented

  PtCompPainNeckMove $2

  Y = Yes
  N = No
  ND = Not documented

- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

PtCompPainChest #
PtCompPainBack #
PtCompPainFlank #
PtCompPainAbd #
PtCompPainPelvis #
PtCompPainExt #

1 = Checked
0 = Not Checked

clinicalpresentationsite (7 of 13)

Did the patient have tenderness on exam?
- ⦿ Yes and the regions of the body affected are documented
- ⦾ Yes and the regions of body affected are NOT documented
- ⦾ No
- ⦾ Sedated / paralyzed
- ⦾ Not applicable
- ⦾ Not documented

PtTender $3

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:
- ☐ Head
- ☐ Face
- ☑ Neck

PtTenderHead #
PtTenderFace #
PtTenderNeck #

1 = Checked
0 = Not Checked

If checked, please check all descriptors that apply:
- ☐ Anterior
- ☐ Posterior
- ☐ Lateral
- ☐ Midline
- ☑ Level
  - ☐ C1
  - ☐ C2
  - ☐ C3
  - ☐ C4
  - ☐ C5
  - ☐ C6
  - ☐ C7
- ☐ Other [   ]

PtTenderNeckAnt #
PtTenderNeckPos #
PtTenderNeckLat #
PtTenderNeckMid #
PtTenderNeckLevel #

1 = Checked
0 = Not Checked

PtTenderNeckLevelC1 #
PtTenderNeckLevelC2 #
PtTenderNeckLevelC3 #
PtTenderNeckLevelC4 #
PtTenderNeckLevelC5 #
PtTenderNeckLevelC6 #
PtTenderNeckLevelC7 #

1 = Checked
0 = Not Checked

PtTenderNeckOther #

1 = Checked
0 = Not Checked

PtTenderNeckOthertxt $96

Derived variable included in the clinicalpresentationsite dataset:					
Variable	Type	Length	Label	Values	Details
PtTenderNeckOtherTxtCat	$	3	Other neck tenderness findings deemed consistent with posterior midline neck tenderness by consensus panel	YES Missing	Three study investigators independently reviewed open text entered into the PtTenderNeckOthertxt and flagged responses that they considered consistent with posterior midline neck tenderness. Discrepancies were discussed and consensus reached, with YES identifying those that were consistent with the definition.

clinicalpresentationsite (8 of 13)

Chest
Back
Flank
Abdomen
Pelvis
Extremities

PtTenderChest #	
PtTenderBack #	
PtTenderFlank #	
PtTenderAbd #	
PtTenderPelvis #	
PtTenderExt #	

1 = Checked
0 = Not Checked

clinicalpresentationsite (9 of 13)

Did the patient have limited range of motion of the neck or torticollis?
- ○ Yes
- ● No
- ○ Sedated or paralyzed
- ○ C-collar in place
- ○ Not applicable
- ○ Not documented

LimitedRangeMotion $2

Y = Yes and the regions of the body affected are documented
N = No
3 = Sedated or paralyzed
4 = C-collar in place
NA = Not applicable
ND = Not documented

Aside from tenderness on exam, was there any other clinical evidence of substantial injuries?
- ● Yes
- ○ No
- ○ Not documented

  If yes, check all affected regions of the body:
  - ☐ Head
  - ☐ Face
  - ☐ Neck
  - ☐ Chest
  - ☐ Back
  - ☐ Flank
  - ☐ Abdomen
  - ☐ Pelvis
  - ☐ Extremities

OtherInjuries $2

Y = Yes
N = No
ND = Not documented

OtherInjuriesHead #
OtherInjuriesFace #
OtherInjuriesNeck #
OtherInjuriesChest #
OtherInjuriesBack #
OtherInjuriesFlank #
OtherInjuriesAbd #
OtherInjuriesPelvis #
OtherInjuriesExt #

1 = Checked
0 = Not Checked

Aside from tenderness on exam, was there any other clinical evidence of minor injuries?
- ● Yes
- ○ No
- ○ Not Documented

  If yes check all affected regions of the body:
  - ☐ Head
  - ☐ Face
  - ☐ Neck
  - ☐ Chest
  - ☐ Back
  - ☐ Flank
  - ☐ Abdomen
  - ☐ Pelvis
  - ☐ Extremities

MinorInjuries $2

Y = Yes
N = No
ND = Not documented

MinorInjuriesHead #
MinorInjuriesFace #
MinorInjuriesNeck #
MinorInjuriesChest #
MinorInjuriesBack #
MinorInjuriesFlank #
MinorInjuriesAbs #
MinorInjuriesPelv #
MinorInjuriesExt #

1 = Checked
0 = Not Checked

Neurological Examination

Did the patient have any paresthesias (abnormal tactile sensation)?
- ○ Yes
- ● No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtParesthesias $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have any loss of sensation (loss of feeling in any region of body)?
- ○ Yes
- ● No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtSensoryLoss $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have any extremity weakness?
- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ● Not applicable
- ○ Not documented

PtExtremityWeakness $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have a neurological deficit other than paresthesias, loss of sensation or extremity weakness?
- ● Yes
- ○ No
- ○ Not Applicable
- ○ Not Documented

OtherNeuroDeficit $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

If yes, please describe the neurological deficit:

OtherNeuroDeficitDesc $277

Derived variable included in the clinicalpresentationsite dataset:

Variable	Type	Length	Label	Values	Details
OtherNeuroDeficitDescCat	$	3	Other neurologic finding deemed consistent with spine injury by consensus panel	YES NO	Open text entered into the OtherNeuroDeficitDesc field was independently reviewed by three study investigators. Each response was categorized as YES or NO other neurological finding consistent with spine injury. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

Clinical Interventions at the Study Site

Is there documentation that cervical spine precautions were in place after initial evaluation at the study site?

- ⦿ Yes and specific precautions were documented.
- ○ Yes but specific precautions were not documented.
- ○ No

CSpinePrecautions $3

YD = Yes and specific precautions documented

YND = Yes but specific precautions were not documented

N = No

If Yes, indicate all cervical spine precautions:

- ☐ Cervical Collar
- ☐ Rigid long board
- ☑ Other method of cervical spine immobilization

CSpinePrecautionsCC #
CSpinePrecautionsRLB #
CSpinePrecautionsOther #

1 = Checked
0 = Not Checked

CSpinePrecautionsOthertxt $500

Is there documentation that medications were given during the initial evaluation at the study site?

- ⦿ Yes
- ○ No

MedsGiven $1

Y = Yes
N = No

If Yes, indicate all medications given

- ☐ Analgesics
- ☐ Glucocorticoids
- ☐ Paralytics
- ☐ Sedatives
- ☑ Other [other med]

MedsGivenAna #
MedsGivenGlu #
MedsGivenPar #
MedsGivenSed #
MedsGivenOther #

1 = Checked
0 = Not Checked

MedsGivenOthertxt $174

Is there documentation that the patient was intubated during the initial evaluation at the study site?

- ○ Yes
- ⦿ Intubation continued
- ○ Extubated
- ○ No

IntubatedSS $5

Y = Yes
INTUB = Intubation continued
EXTUB = Extubated
NOTUB = No

What was the patient`s disposition after the initial evaluation at the study site?

- ○ Home
- ○ Admit - ICU
- ○ Admit - general inpatient
- ○ Admit - short stay - <24 hour - observation unit
- ○ OR
- ◉ Transferred to [LDS]
- ○ Death at study site

EDDisposition $9

HOME = Home
ICU = Admit – ICU
GEN = Admit – general inpatient
SHORT = Admit – short stay - < 24 hour observation unit
OR = OR
TRANSFER = Transferred to
DEATH = Death at study site

Did the patient undergo interventions for cervical stabilization at the study site?

- ◉ Yes
- ○ No

IntervForCervicalStab $1

Y = Yes
N = No

If yes, check all interventions that apply:

- ☐ Soft Collar
- ☐ Rigid Collar
- ☐ Brace
- ☐ Traction
- ☑ Surgical
  - ☐ Halo
  - ☑ Internal Fixation [ ]
- ☑ Other [ ]

IntervForCervicalStabSCollar #
IntervForCervicalStabRCollar #
IntervForCervicalStabBrace #
IntervForCervicalStabTraction #
IntervForCervicalStabSurgical #
IntervForCervicalStabHalo #
IntervForCervicalStabIntFix #
IntervForCervicalStabIntFixtxt $445
IntervForCervicalStabOther #
IntervForCervicalStabOthertxt $94

1 = Checked
0 = Not Checked

Did patient receive inpatient rehabilitation at the study site?

- ○ Yes
- ◉ No

LongTermRehab $1

Y = Yes
N = No

DEFINITION: This is defined by the patient being evaluated and admitted to the Rehabilitation Service at the study site. Bedside Physical Therapy does not qualify for inpatient rehabilitation.

Was the patient transferred from the study site to a rehabilitation facility?
- ◉ Yes
- ○ No

TrfToLongTermRehab $1

Y = Yes
N = No

N = Normal
DTH = Death during Hospitalization
PND = Persistent Neurological Deficit

What was the patient`s neurological outcome at discharge from the study site?
- ○ Normal
- ○ Death during Hospitalization
- ◉ Persistent Neurological Deficit

OutcomeStudySite $3

Please classify the patient`s cognitive function
- ○ Normal or good recovery
- ○ Moderate disability (Cognitive disabilities but are able to live independently.)
- ○ Severe disability (Conscious but have cognitive disabilities that render them dependent.)
- ○ Persistent vegetative state

OutcomeStudySiteNeuro $3

NR = Normal or good recovery
MD = Moderate disability (Cognitive disabilities but are able to live independently.)
SD = Severe disability (Conscious but have cognitive disabilities that render them dependent.)
PVS = Persistent vegetative state

Please classify mobility
- ○ Normal
- ○ Dependent Ambulation - cane, walker, etc
- ○ Wheelchair dependent
  - ☐ Complete paraplegia
- ○ Immobile
  - ☐ Complete quadriplegia

OutcomeStudySiteMobility $2

N = Normal
DA = Dependent Ambulation - cane, walker, etc
WD = Wheelchair dependent
I = Immobile

OutcomeStudySiteMobility1 #

OutcomeStudySiteMobility2 #

1 = Checked
0 = Not Checked

Please indicate bowel function
- ○ Normal
- ○ Incontinence of stool

OutcomeStudySiteBowel $1

N = Normal
I = Incontinence of stool

Please classify bladder function
- ○ Normal
- ○ Incontinence of urine
- ○ Chronic Catheterization

OutcomeStudySiteUrine $1

N = Normal
I = Incontinence of urine
C = Chronic Catheterization

Injury Classification Sheet

site #

caseid $7

controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

INJURY CLASSIFICATION SHEET

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Fracture of the Cervical Spine

Were there fractures of the cervical spine?

◉ Yes

○ No

CSFractures $1

Y = Yes
N = No

If yes for each fractured vertebrae, check all that apply.

☐ Occipital condyle fracture

CFracturesOC #

1 = Checked
0 = Not Checked

☑ C1 Fracture   CFracturesC1 #

☑ Arches   CFracturesAR #

1 = Checked
0 = Not Checked

○ Anterior

○ Posterior

CFracturesType $1

A = Anterior
P = Posterior
J = Jefferson (Anterior and Posterior)

○ Jefferson (Anterior and Posterior)

☐ Transverse process

CFracturesTP #

☐ Lateral mass

CFracturesLM #

1 = Checked
0 = Not Checked

☐ Other injury

CFracturesOI #

C1SbFractureOItxt $61

injuryclassification (2 of 15)

☑ C2 Vertebral Fracture   CFracturesC2 #

1 = Checked
0 = Not Checked

☑ Odontoid   C2SbFractureOdontoid #

1 = Type 1--through the tip of the odontoid
2 = Type 2--through the base of the odontoid
3 = Type 3--through the body of C2 involving odontoid

⚪ Type 1 -- through tip of the odontoid
⚪ Type 2 -- through base of odontoid   C2SbFractureOdType $100 #
⚪ Type 3 -- through the body of C2 involving odontoid

☑ Pars interarticularis   C2SbFracturePars #

1 = Checked
0 = Not Checked

⚪ Unilateral
⚪ Bilateral(Hangmans)   C2SbFractureTypePARS #

UN = Unilateral
BI = Bilateral (Hangman's)

☑ Body other than odontoid   C2SbFractureBOOT #

1 = Checked
0 = Not Checked

☐ Wedge / Compression   C2SbFractureBOOTypeWC #
☐ Burst   C2SbFractureBOOTypeBT #
☐ Teardrop   C2SbFractureBOOTypeTD #
☑ Loss of height   C2SbFractureBOOTypeLH #
☑ Other test   C2SbFractureBOOTypeOR #

1 = Checked
0 = Not Checked

C2SbFractureBOOTypeORtxt $79

☐ Lamina   C2SbFractureLA #
☐ Lateral mass   C2SbFractureLM #
☐ Spinous Process   C2SbFractureSP #
☐ Other injury   C2SbFractureOR #

1 = Checked
0 = Not Checked

C2SbFractureORtxt $76

injuryclassification (3 of 15)

☑ C3 Fracture

CFracturesC3 #

1 = Checked
0 = Not Checked

☑ Body   C3SbFractureBY #

☐ Wedge/Compression   C3SbFractureBYWC #

☐ Burst   C3SbFractureBYB #

☐ Teardrop   C3SbFractureBYTD #

1 = Checked
0 = Not Checked

☐ Loss of height   C3SbFractureBYLH #

☐ Other   C3SbFractureBYOR #

C3SbFractureBYORtxt $45

1 = Checked
0 = Not Checked

☑ Pedicle   C3SbFracturePE #

○ Unilateral   C3SbFracturePEType $1

B = Bilateral
U = Unilateral

○ Bilateral

☐ Transverse process   C3SbFractureTP #

☐ Lateral Mass   C3SbFractureLM #

1 = Checked
0 = Not Checked

☑ Facet   C3SbFractureFT #

○ Unilateral   C3SbFractureFTType $1

B = Bilateral
U = Unilateral

○ Bilateral

☐ Lamina   C3SbFractureLA #

☐ Spinous Process   C3SbFractureSP #

☐ Canal Compromise   C3SbFractureCC #

1 = Checked
0 = Not Checked

☐ Other injury   C3SbFractureOR #

C3SbFractureORtxt $57

injuryclassification (4 of 15)

☑ C4 Fracture

CFracturesC4 #

1 = Checked
0 = Not Checked

☑ Body — C4SbFractureBY #

☐ Wedge / Compression — C4SbFractureBYWC #

☐ Burst — C4SbFractureBYB #

☐ Teardrop — C4SbFractureBYTD #

☐ Loss of height — C4SbFractureBYLH #

☐ Other — C4SbFractureBYOR #

1 = Checked
0 = Not Checked

C4SbFractureBYORtxt $33

1 = Checked
0 = Not Checked

☑ Pedicle — C4SbFracturePE #

○ Unilateral

○ Bilateral

C4SbFracturePEType $1

B = Bilateral
U = Unilateral

☐ Transverse process — C4SbFractureTP #

☐ Lateral Mass — C4SbFractureLM #

☑ Facet — C4SbFractureFT #

1 = Checked
0 = Not Checked

○ Unilateral

○ Bilateral

C4SbFractureFTType $1

B = Bilateral
U = Unilateral

☐ Lamina — C4SbFractureLA #

☐ Spinous Process — C4SbFractureSP #

☐ Canal Compromise — C4SbFractureCC #

☐ Other injury — C4SbFractureOR #

1 = Checked
0 = Not Checked

C4SbFractureORtxt $41

injuryclassification (5 of 15)

☑ C5 Fracture — CFracturesC5 # — 1 = Checked / 0 = Not Checked

☑ Body — C5SbFractureBY #

☐ Wedge / Compression — C5SbFractureBYWC #

☐ Burst — C5SbFractureBYB #

☐ Teardrop — C5SbFractureBYTD # — 1 = Checked / 0 = Not Checked

☐ Loss of height — C5SbFractureBYLH #

☐ Other — C5SbFractureBYOR #

C5SbFractureBYORtxt $65

☑ Pedicle — C5SbFracturePE # — 1 = Checked / 0 = Not Checked

○ Unilateral
○ Bilateral — C5SbFracturePEType $1 — B = Bilateral / U = Unilateral

☐ Transverse process — C5SbFractureTP #

☐ Lateral Mass — C5SbFractureLM # — 1 = Checked / 0 = Not Checked

☑ Facet — C5SbFractureFT #

○ Unilateral
○ Bilateral — C5SbFractureFTType $1 — B = Bilateral / U = Unilateral

☐ Lamina — C5SbFractureLA #

☐ Spinous Process — C5SbFractureSP #

☐ Canal Compromise — C5SbFractureCC # — 1 = Checked / 0 = Not Checked

☐ Other injury — C5SbFractureOR #

C5SbFractureORtxt $1

injuryclassification (6 of 15)

☑ C6 Fracture   CFracturesC6 #

1 = Checked
0 = Not Checked

☑ Body   C6SbFractureBY #

☐ Wedge / Compression   C6SbFractureBYWC #

☐ Burst   C6SbFractureBYB #

☐ Teardrop   C6SbFractureBYTD #

1 = Checked
0 = Not Checked

☐ Loss of height   C6SbFractureBYLH #

☐ Other   C6SbFractureBYOR #

C6SbFractureBYORtxt $71

1 = Checked
0 = Not Checked

☑ Pedicle   C6SbFracturePE #

1 = Checked
0 = Not Checked

○ Unilateral

○ Bilateral   C6SbFracturePEType $1

B = Bilateral
U = Unilateral

☐ Transverse process   C6SbFractureTP #

☐ Lateral Mass   C6SbFractureLM #

1 = Checked
0 = Not Checked

☑ Facet   C6SbFractureFT #

○ Unilateral

○ Bilateral   C6SbFractureFTType $1

B = Bilateral
U = Unilateral

☐ Lamina   C6SbFractureLA #

☐ Spinous Process   C6SbFractureSP #

☐ Canal Compromise   C6SbFractureCC #

1 = Checked
0 = Not Checked

☐ Other injury   C6SbFractureOR #

C6SbFractureORtxt $30

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injuryclassification (7 of 15)

☑ C7 Fracture

CFracturesC7 #

1 = Checked
0 = Not Checked

☑ Body C7SbFractureBY #

☐ Wedge / Compression C7SbFractureBYWC #

☐ Burst C7SbFractureBYB #

☐ Teardrop C7SbFractureBYTD #

☐ Loss of height C7SbFractureBYLH #

☐ Other C7SbFractureBYOR #

1 = Checked
0 = Not Checked

C7SbFractureBYORtxt $21

1 = Checked
0 = Not Checked

☑ Pedicle C7SbFracturePE #

○ Unilateral C7SbFracturePEType $1

○ Bilateral

B = Bilateral
U = Unilateral

☐ Transverse process C7SbFractureTP #

☐ Lateral Mass C7SbFractureLM #

☑ Facet C7SbFractureFT #

1 = Checked
0 = Not Checked

○ Unilateral C7SbFractureFTType $1

○ Bilateral

B = Bilateral
U = Unilateral

☐ Lamina C7SbFractureLA #

☐ Spinous Process C7SbFractureSP #

☐ Canal Compromise C7SbFractureCC #

☐ Other injury C7SbFractureOR #

1 = Checked
0 = Not Checked

C7SbFractureORtxt $1

Ligamentous injury to cervical spinal column

Were there ligamentous injuries to the cervical spinal column?

◉ Yes | Ligamentoptions $1 | Y = Yes / N = No

◯ No

If yes for each injured vertebral level, check all that apply.

☑ Occipital-atlantal dislocation | LigamentousInjuryOAD # | 1 = Checked / 0 = Not Checked

☑ C1-2 | LigamentousInjuryC12 #

  ☑ Facet Dislocations(jumped)/Perched Facets | C1_2SbLigFD # | 1 = Checked / 0 = Not Checked

    ◯ Unilateral

    ◯ Bilateral | C1_2SbLigFDUB $1 | B = Bilateral / U = Unilateral

  ☑ Subluxation of one vertebral body on another | C1_2SbLigSL # | 1 = Checked / 0 = Not Checked

    ☐ Atlantoaxial rotary subluxation | C1_2SbLigSLARS #

    ☐ ADI interval > 5 mm | C1_2SbLigSLADI #

  ☐ Angulation | C1_2SbLigAL # | 1 = Checked / 0 = Not Checked

  ☑ Signal change on MRI | C1_2SbLigSC #

    ☐ Anterior ligaments/elements | C1_2SbLigSCAL#

    ☐ Disc | C1_2SbLigSCDC #

    ☐ Within spinal canal -- including hematoma | C1_2SbLigSCWSC#

    ☐ Posterior ligaments/elements | C1_2SbLigSCPL # | 1 = Checked / 0 = Not Checked

C-Spine Annotated PUD eCRF

injuryclassification (9 of 15)

☑ C2-3   LigamentousInjuryC23 #

1 = Checked
0 = Not Checked

☑ Facet Dislocations(jumped)/Perched Facets   C2_3SbLigFD #

1 = Checked
0 = Not Checked

○ Unilateral
○ Bilateral

C2_3SbLigFDUB $1

B = Bilateral
U = Unilateral

☐ Subluxation of one vertebral body on another   C2_3SbLigSL #

☐ Angulation   C2_3SbLigAL #

1 = Checked
0 = Not Checked

☑ Signal change on MRI   C2_3SbLigSC #

1 = Checked
0 = Not Checked

☐ Anterior ligaments/elements   C2_3SbLigSCAL#

☐ Disc   C2_3SbLigSCDC #

☐ Within spinal canal -- including hematoma   C2_3SbLigSCWSC#

☐ Posterior ligaments/elements   C2_3SbLigSCPL #

1 = Checked
0 = Not Checked

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injuryclassification (10 of 15)

☑ C3-4

LigamentousInjuryC34 #

1 = Checked
0 = Not Checked

   ☑ Facet Dislocations(jumped)/Perched Facets

C3_4SbLigFD #

1 = Checked
0 = Not Checked

      ◯ Unilateral
      ◯ Bilateral

C3_4SbLigFDUB $1

B = Bilateral
U = Unilateral

   ☐ Subluxation of one vertebral body on another

C3_4SbLigSL #

   ☐ Angulation

C3_4SbLigAL #

1 = Checked
0 = Not Checked

   ☑ Signal change on MRI

C3_4SbLigSC #

1 = Checked
0 = Not Checked

      ☐ Anterior ligaments/elements

C3_4SbLigSCAL#

      ☐ Disc

C3_4SbLigSCDC #

      ☐ Within spinal canal -- including hematoma

C3_4SbLigSCWSC#

      ☐ Posterior ligaments/elements

C3_4SbLigSCPL #

1 = Checked
0 = Not Checked

injuryclassification (11 of 15)

☑ C4-5   LigamentousInjuryC45 # → 1 = Checked / 0 = Not Checked

     ☑ Facet Dislocations(jumped)/Perched Facets   C4_5SbLigFD # → 1 = Checked / 0 = Not Checked

       ○ Unilateral

       ○ Bilateral   C4_5SbLigFDUB $1 → B = Bilateral / U = Unilateral

     ☐ Subluxation of one vertebral body on another   C4_5SbLigSL #

     ☐ Angulation   C4_5SbLigAL # → 1 = Checked / 0 = Not Checked

     ☑ Signal change on MRI   C4_5SbLigSC # → 1 = Checked / 0 = Not Checked

       ☐ Anterior ligaments/elements   C4_5SbLigSCAL#

       ☐ Disc   C4_5SbLigSCDC #

       ☐ Within spinal canal -- including hematoma   C4_5SbLigSCWSC# → 1 = Checked / 0 = Not Checked

       ☐ Posterior ligaments/elements   C4_5SbLigSCPL #

C-Spine Annotated PUD eCRF

injuryclassification (12 of 15)

☑ C5-6   LigamentousInjuryC56 #   1 = Checked
                                                0 = Not Checked

  ☑ Facet Dislocations(jumped)/Perched Facets   C5_6SbLigFD #   1 = Checked
                                                                  0 = Not Checked
    ○ Unilateral   C5_6SbLigFDUB $1   B = Bilateral
    ○ Bilateral   U = Unilateral

  ☐ Subluxation of one vertebral body on another   C5_6SbLigSL #   1 = Checked
                                                                     0 = Not Checked
  ☐ Angulation   C5_6SbLigAL #

  -
  ☑ Signal change on MRI   C5_6SbLigSC #   1 = Checked
                                                    0 = Not Checked
    ☐ Anterior ligaments/elements   C5_6SbLigSCAL#
    ☐ Disc   C5_6SbLigSCDC #   1 = Checked
    ☐ Within spinal canal -- including hematoma   C5_6SbLigSCWSC#   0 = Not Checked
    ☐ Posterior ligaments/elements   C5_6SbLigSCPL #

C-Spine Annotated PUD eCRF

injuryclassification (13 of 15)

☑ C6-7   LigamentousInjuryC67 #   1 = Checked / 0 = Not Checked

☑ Facet Dislocations(jumped)/Perched Facets   C6_7SbLigFD #   1 = Checked / 0 = Not Checked

○ Unilateral   C6_7SbLigFDUB $1   B = Bilateral / U = Unilateral
○ Bilateral

☐ Subluxation of one vertebral body on another   C6_7SbLigSL #   1 = Checked / 0 = Not Checked
☐ Angulation   C6_7SbLigAL #

☑ Signal change on MRI   C6_7SbLigSC #   1 = Checked / 0 = Not Checked
☐ Anterior ligaments/elements   C6_7SbLigSCAL#
☐ Disc   C6_7SbLigSCDC #   1 = Checked / 0 = Not Checked
☐ Within spinal canal -- including hematoma   C6_7SbLigSCWSC#
☐ Posterior ligaments/elements   C6_7SbLigSCPL #

C-Spine Annotated PUD eCRF

☑ C7-T1 LigamentousInjuryC7T1 #

1 = Checked
0 = Not Checked

☑ Facet Dislocations(jumped)/Perched Facets   C7_T1SbLigFD #

1 = Checked
0 = Not Checked

○ Unilateral   C7_T1SbLigFDUB $1
○ Bilateral

B = Bilateral
U = Unilateral

☐ Subluxation of one vertebral body on another   C7_T1SbLigSL #

☐ Angulation   C7_T1SbLigAL #

1 = Checked
0 = Not Checked

☑ Signal change on MRI   C7_T1SbLigSC #

1 = Checked
0 = Not Checked

☐ Anterior ligaments/elements   C7_T1SbLigSCAL#

☐ Disc   C7_T1SbLigSCDC #

☐ Within spinal canal -- including hematoma   C7_T1SbLigSCWSC#

☐ Posterior ligaments/elements   C7_T1SbLigSCPL #

1 = Checked
0 = Not Checked

Cervical Spinal Cord Injury

Injuries to the spinal cord are usually described as increased T2 intensity on the MRI. Please indicate all signal changes in the MRI (if available)

Was there signal changes in the cervical spinal cord on MRI?

- ◉ Yes   CSpineSignalChange $2
- ○ No
- ○ Not Applicable - No MRI performed

Y = Yes
N = No
NA = Not Applicable - No MRI performed

If yes, please check all the affected cervical levels

- ☐ C1   SignalChangeLevelC1 #
- ☐ C2   SignalChangeLevelC2 #
- ☐ C3   SignalChangeLevelC3 #
- ☑ C4   SignalChangeLevelC4 #
- ☐ C5   SignalChangeLevelC5 #
- ☐ C6   SignalChangeLevelC6 #
- ☐ C7   SignalChangeLevelC7 #

1 = Checked
0 = Not Checked

Does the patient have a spinal cord injury without radiographic association (SCIWORA)?

- ◉ Yes   CordInjuryNoRadiographic $1
- ○ No

Y = Yes
N = No

Injury Mechanism

site #   caseid $7   controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

INJURY MECHANISM

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Date of injury:
Format: mm/dd/yy: injurydate DT
☐ Not documented   InjuryDateND #   1 = Checked
0 = Not Checked

Time of day injury occured:
Format: HH:MM: InjuryTime $5
InjuryTimeND #   1 = Checked
0 = Not Checked
☐ Exact time not documented
(If checked attempt to estimate time of injury)
Estimated time of injury
○ 00:01 - 04:00
○ 04:01 - 08:00   EstimateTimeInjury $1
○ 08:01 - 12:00
○ 12:01 - 16:00
○ 16:01 - 20:00
○ 20:01 - 00:00
○ Unable to estimate

1 = 00:01 - 04:00
2 = 04:01 - 08:00
3 = 08:01 - 12:00
4 = 12:01 - 16:00
5 = 16:01 - 20:00
6 = 20:01 - 00:00
U = Unable to estimate

ICD-9 E-codes for mechanism of injury ICD-9 E-codes for location where injury occurred

ICD9MechInjury1 $6	ICD9Location1 $6
ICD9MechInjury2 $6	ICD9Location2 $6
ICD9MechInjury3 $6	ICD9Location3 $6

Mechanism: Location:
Add   1 more entry

1 = Motor Vehicle Collision
2 = Other Motorized Transport Crash
3 = Bike rider struck by moving vehicle
4 = Bike collision or fall from bike
5 = Other non-motorized transport struck by moving vehicle
6 = Pedestrian struck by moving vehicle
7 = Blunt injury to head/neck
8 = Sports injury
9 = Fall from elevation
10 = Fall down stairs
11 = Fall from standing/walking/running
12 = Diving injury
13 = Hanging injury
14 = Other
20 = Other non-motorized transport collision or fall from non-motorized transport while riding
ND = Not documented

Indicate the primary mechanism of injury. Check only one mechanism.

1. Occupant in Motor Vehicle Collision (MVC)

InjuryPrimaryMechanism $2

○ Motor Vehicle Collision

Type of Collision - Check all that apply

☐ Rear end collision   MVCREC #
☐ Head on collision   MVCHOC #
☐ Side Impact   MVCSI #
☐ Rollover   MVCRO #
☐ Ejected from automobile MVCEFA #
☐ Death in the same collision MVCDSC #

1 = Checked
0 = Not Checked

Speed of patients vehicle

○ <= 25MPH - residential speed
○ 26 - 54 MPH   MVCSpeed #
○ >= 55 MPH - highway speed
○ Vehicle speed not documented

1 = <= 25MPH - residential speed
2 = 26 - 54 MPH
3 = >= 55 MPH - highway speed
Missing = Vehicle speed not documented

Was a passenger restraint system used?

○ Yes - Child safety seat, booster seat, seatbelts or other
○ No   PassRestraint #
○ Not documented

1 = Yes - Child safety seat, booster seat, seatbelts or other
0 = No
Missing = Not documented

C-Spine Annotated PUD eCRF

Refer to InjuryPrimaryMechanism annotation on page 66

2. Other Motorized transport crash (ATV, 4 Wheeler, motorcycle, etc)
   Other Motorized Transport Crash [_____] InjuryPrimaryMechanismtxt $156

   Speed of patient`s vehicle
   - ⊙ <= 25MPH - residential speed
   - ⊙ 26 - 54 MPH
   - ⊙ >= 55 MPH - highway speed
   - ⊙ Vehicle speed not documented

OMTSpeed#

```
1 = <= 25MPH - residential speed
2 = 26 - 54 MPH
3 = >= 55 MPH - highway speed
Missing = Vehicle speed not documented
```

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   - ⊙ Yes
   - ⊙ No
   - ⊙ Not documented

clotheslining $2

Was the child wearing a protective helmet?
   - ⊙ Yes
   - ⊙ No
   - ⊙ Not documented

helmet $2

```
Y = Yes
N = No
ND = Not documented
```

3. Bike rider struck by moving vehicle   Refer to InjuryPrimaryMechanism annotation on page 66
   ◉ Bike rider struck by moving vehicle
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   ○ Yes
   ○ No   clotheslining $2
   ○ Not documented
   Was the child wearing a protective helmet?   Y = Yes
   ○ Yes   N = No
                  helmet $2   ND = Not documented
   ○ No
   ○ Not documented

4. Bike collision or fall from bike while riding   Refer to InjuryPrimaryMechanism annotation on page 66
   ◉ Bike collision or fall from bike
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   ○ Yes
   ○ No   clotheslining $2
   ○ Not documented   Y = Yes
   Was the child wearing a protective helmet?   N = No
   ○ Yes   ND = Not documented
                  helmet $2
   ○ No
   ○ Not documented

Refer to InjuryPrimaryMechanism annotation on page 66

5. Other Non-motorized transport (go cart, scooter, wagon etc) struck by moving vehicle
- ⦿ Other non-motorized transport

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
- ○ Yes
- ○ No
- ○ Not documented

clotheslining $2

Y = Yes
N = No
ND = Not documented

Was the child wearing a protective helmet?
- ○ Yes
- ○ No
- ○ Not documented

helmet $2

Refer to InjuryPrimaryMechanism annotation on page 66

6. Other Non-motorized transport (go cart, scooter, wagon etc) collision or fall from non-motorized transport while riding
- ⦿ Other non-motorized transport

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
- ○ Yes
- ○ No
- ○ Not documented

clotheslining $2

Y = Yes
N = No
ND = Not documented

Was the child wearing a protective helmet?
- ○ Yes
- ○ No
- ○ Not documented

helmet $2

injurymechanism (6 of 9)

7. Pedestrian struck by moving vehicle
   ○ Pedestrian struck by moving vehicle

Refer to InjuryPrimaryMechanism annotation on page 66

8. Blunt injury to the head/neck
   ◉ Blunt injury to the head/neck

Refer to InjuryPrimaryMechanism annotation on page 66

   ☐ Assault
      ☐ Suspected or confirmed child abuse
      ☐ Shaken baby syndrome

Assault #

ChildAbuse #

ShakenBabySyndrome #

1 = Checked
0 = Not Checked

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?
   ○ Yes
   ○ No
   ○ Not documented

clotheslining $2

Y = Yes
N = No
ND = Not documented

9. Sports Injury (describe)   Refer to InjuryPrimaryMechanism annotation on page 66
   ◉ Sports injury [   ]

InjuryPrimaryMechanismtxt $156

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?
   ○ Yes
   ○ No
   ○ Not documented

clotheslining $2

Was the child wearing a protective helmet?
   ○ Yes
   ○ No
   ○ Not documented

helmet $2

Y = Yes
N = No
ND = Not documented

10. Fall from elevation (estimated height in feet)
- ◉ Fall from elevation

Refer to InjuryPrimaryMechanism annotation on page 66

- ◎ < 3 ft
- ◎ >= 3 ft to < 10 ft
- ◎ >= 10ft
- ◎ Not documented

FallFromElevation #

1 = "< 3 ft"
2 = ">= 3 ft to < 10 ft"
3 = ">= 10ft"
Missing = Not documented

11. Fall down stairs (estimated # of stairs)
- ◉ Fall down stairs

Refer to InjuryPrimaryMechanism annotation on page 66

- ◎ 5 or less
- ◎ 6-15
- ◎ > 15
- ◎ Not documented

FallDownStairs #

1 = 5 or less
2 = 6-15
3 = > 15
Missing = Not documented

12. Fall from standing/walking/running
⦿ Fall from standing/walking/running
Refer to InjuryPrimaryMechanism annotation on page 66

13. Diving Injury
◯ Diving injury
Refer to InjuryPrimaryMechanism annotation on page 66

14. Hanging Injury
◯ Hanging injury
Refer to InjuryPrimaryMechanism annotation on page 66

Refer to InjuryPrimaryMechanism annotation on page 66

15. Other (describe)
⦿ Other [   ]

InjuryPrimaryMechanismtxt $156

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?
◯ Yes
◯ No

clotheslining $2

◯ Not documented
Was the child wearing a protective helmet?
◯ Yes
◯ No

helmet $2

Y = Yes
N = No
ND = Not documented

◯ Not documented

16. Not Documented
◯ Not documented
Refer to InjuryPrimaryMechanism annotation on page 66

Supplemental Mechanism of Injury Information

Axial Load

lblImpHeadFirst requires a value

Was the impact head first striking against the ground or other solid object OR did a heavy object strike directly on top of the head?

- ⦿ Yes
- ○ No

HeadFirst $2

Y = Yes
N = No
ND = Not documented

- ○ Not documented

If yes, indicate the region of the head that was struck

- ○ Front - frontal
- ○ Top
- ○ Back - occipital
- ○ Side
- ○ Not documented

HeadFirstRegion $5

F = Front - frontal
T = Top
B = Back - occipital
S = Side
ND = Not documented

Medical History

site #   caseid $7   controltype $4

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

PAST MEDICAL AND SURGICAL HISTORY

studysubjectid $7

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

☐ No past medical or surgical history is documented on the study site medical record

FormOff #

Please review the study site medical record for documentation of the patients past medical and surgical history. Classify any noted abnormalities by checking the "abnormal" box next to the affected organ system and describing the condtion or procedure using the associated checklist or text box.

Body as a whole (Systemic disease or genetic syndromes)
○ Normal
● Abnormal

BodyAsAWhole $1

N = Normal
A = Abnormal

☐ Down Syndrome
☐ Klippel-Feil Syndrome
☐ Mucopolysaccharidosis
☐ Ehlers-Danlos Syndrome
☐ Marfan Syndrome
☐ Osteogenesis Imperfecta
☐ Other(Please provide a description below)

BodyAsAWhole0 #
BodyAsAWhole1 #
BodyAsAWhole2 #
BodyAsAWhole3 #
BodyAsAWhole4 #
BodyAsAWhole5 #
BodyAsAWhole6 #

1 = Checked
0 = Not Checked

Describe: Value not provided

C-Spine Annotated PUD eCRF

Head, Ears, Eyes, Nose, and Throat (HEENT)
- ○ Normal
- ◉ Abnormal

HEENT $1

N = Normal
A = Abnormal

Describe: Value not provided

Cardiovascular
- ○ Normal
- ◉ Abnormal

Cardiovascular $1

N = Normal
A = Abnormal

Describe: Value not provided

Respiratory
- ○ Normal
- ◉ Abnormal

Respiratory $1

N = Normal
A = Abnormal

Describe: Value not provided

Gastrointestinal
- ◯ Normal
- ◉ Abnormal

Gastrointestinal $1

N = Normal
A = Abnormal

Describe:
Value not provided

Genitourinary/ Renal/ Reproductive
- ◯ Normal
- ◉ Abnormal
  - ☐ Renal Osteodystrophy
  - ☐ Other(Please provide a description below)

Genitourinary $1

N = Normal
A = Abnormal

Genitourinary1 #
Genitourinary2 #

1 = Checked
0 = Not Checked

Describe:
Value not provided

Musculoskeletal
- ◯ Normal
- ◉ Abnormal

Musculoskeletal $1

N = Normal
A = Abnormal

Describe:
Value not provided

medicalhistory (4 of 5)

Neurological

○ Normal

◉ Abnormal

Neurological $1

N = Normal
A = Abnormal

Describe:

Value not provided

Endocrinological

○ Normal

◉ Abnormal

Endocrinological $1

N = Normal
A = Abnormal

☐ Ricketts

☐ Other(Please provide a description below)

Endocrinological1 #

Endocrinological2 #

1 = Checked
0 = Not Checked

Describe:

Value not provided

Dermatological / Skin/ Subcutaneous Tissue

○ Normal

◉ Abnormal

DermatologicalSkin $1

N = Normal
A = Abnormal

Describe:

Value not provided

medicalhistory (5 of 5)

Hematologic / Lymphatic/ Rheumatologic/ Immunologic

○ Normal

HematologicLymphatic $1

N = Normal
A = Abnormal

◉ Abnormal

☐ Juvenile Rheumatoid Arthritus

☐ Juvenile Ankylosing Spondylitis

☑ Other(Please provide a description below)

HematologicLymphatic1 #

HematologicLymphatic2 #

HematologicLymphatic3 #

1 = Checked
0 = Not Checked

Describe: Value not provided

Was the patient taking any medications prior to the injury?

◉ Yes, if so please list all medications

○ No

Medications $1

Y = Yes
N = No

Describe: Value not provided

Derived variable included in the medicalhistory dataset:

Variable	Type	Length	Label	Details/Values
OtherPredisposingCondition	$	40	Other predisposing condition identified during a review of medical history information	Study investigators reviewed open text entered into the medical history form and identified conditions that may predispose patients to cervical spine injury that were not recorded in one of the BodyAsAWhole variables. Conditions identified are summarized as a comma-separated list for each patient, and include: Achondrodysplasia, Arnold Chiari Malformation, C-spine fusion, Larsen's Syndrome, C-spine injury, Cervical spinal stenosis, Congenital anomaly of cervical vertebrae, Down's Syndrome, ESRD

radiologyoutside (1 of 4)

Cervical Spine Injury Sheet for Outside ED   site #   caseid $7   controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

CERVICAL SPINE INJURY SHEET FOR OUTSIDE ED

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Outside Hospital Emergency Department (ED) Documentation

OutsideED $4

◉ Patient evaluated at an outside hospital ED-Records Available

Patient was evaluated at an outside hospital emergency department prior to the study site visit and the neuro-imaging reports, spine surgeon consult or operative reports are available.

◯ Patient evaluated at an outside hospital ED-Records Not Available

Patient presented at an outside hospital ED, but the neuro-imaging reports, spine surgeon consult and operative reports are all unavailable.

◯ Patient presented directly to the study site.

EDA = Patient evaluated at an outside hospital ED-Records Available

EDNA = Patient evaluated at an outside hospital ED-Records Not available

SITE = Patient presented directly to the study site

Neuro-imaging Reports

Neuro-Imaging reports: Please check all studies that were obtained and transcribe the final impression from the radiology report for each study. Please double check all sources for radiology reports.

X-rays

Were cervical spine x-rays (plain films) performed?

- ⦿ Yes
- ◯ No

Xrays $1

Y = Yes
N = No

If yes, which views were obtained?

- ☐ A/P
- ☐ Lateral
- ☐ Open-mouth - odontoid
- ☐ Flexion/Extension
- ☐ Swimmers view
- ☐ Other   Value not provided

XraysViewAP #

XraysViewLt #

XraysViewOM #

XraysViewFE #

XraysViewSW #

XraysViewOt #

1 = Checked
0 = Not Checked

Final Impression: Value not provided

Computed Tomography (CT)

Was a cervical spine CT performed?

◉ Yes   CTPerformed $1 ──── Y = Yes
○ No   N = No

Final Impression: Value not provided

Magnetic Resonance Imaging (MRI)

Was cervical spine MRI performed?

◉ Yes   MRIPerformed $1 ──── Y = Yes
○ No   N = No

Final Impression: Value not provided

Spine Surgeon Consult and Treatment

Was a spine surgeon`s consult available in written or dicated form?

◉ Yes

WrittenOrDictatedConsult $1 — Y = Yes / N = No

◯ No

Assessment / impression: Value not provided

Was a spine surgery operative report available?

◉ Yes

OperativeReport $1 — Y = Yes / N = No

◯ No

Pre-operative diagnosis / impression: Value not provided

Post-operative diagnosis / impression: Value not provided

radiologysite (1 of 3)

site #   caseid $7   controltype $4

studysubjectid $7

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

Cervical Spine Injury Sheet for Study Site

CERVICAL SPINE INJURY SHEET FOR STUDY SITE

Update Patient (PI has to cancel his/her signature for you to do updates)   Create New Issue

Neuro-imaging Reports

Neuro-Imaging reports: Please check all studies that were obtained and transcribe the final impression from the radiology report for each study. Please double check all sources for radiology reports.

X-rays

Were cervical spine x-rays (plain films) performed?

◉ Yes   Xrays $1   Y = Yes
○ No   N = No

   If yes, which views were obtained?

☐ A/P   XraysViewAP #

☐ Lateral   XraysViewLt #

☐ Open-mouth - odontoid   XraysViewOM #

☐ Flexion/Extension   XraysViewFE #   1 = Checked
                                              0 = Not Checked
☐ Swimmers view   XraysViewSW #

☐ Other [Value not provided]   XraysViewOt #

Final Impression: [Value not provided]

C-Spine Annotated PUD eCRF

Computed Tomography (CT)

Was a cervical spine CT performed?

◉ Yes

○ No

CTPerformed $1 —— Y = Yes / N = No

Final Impression: Value not provided

Magnetic Resonance Imaging (MRI)

Was cervical spine MRI performed?

◉ Yes

○ No

MRIPerformed $1 —— Y = Yes / N = No

Final Impression: Value not provided

Spine Surgeon Consult and Treatment

Was a spine surgeon`s consult available in written or dicated form?

◉ Yes
◯ No

WrittenOrDictatedConsult $1

Y = Yes
N = No

Assessment / impression:

Value not provided

Was a spine surgery operative report available?

◉ Yes
◯ No

OperativeReport $1

Y = Yes
N = No

Pre-operative diagnosis / impression:

Value not provided

Post-operative diagnosis / impression:

Value not provided

radiologyreview (1 of 2)

Radiology review

site #

caseid $7

controltype $4

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

studysubjectid $7

Radiology Review 1

How many views were obtained at the study site?
- ○ 1 view
- ○ 2 views
- ◉ 3 or more views
- ○ Not Documented

reviewResultNumOfViews $2

1 = 1 view
2 = 2 views
3 = 3 views
ND = Not Documented

Radiology Review 2

Please classify radiography
- ○ Normal
- ◉ Abnormal/Traumatic (Check all that apply)
  - ☐ Definite fracture
  - ☑ Definite ligamentous injury

  - ☐ Other abnormality: [Value not provided]
- ○ Equivocal (Check all that apply)
  - ☐ Possible fracture
  - ☐ Loss of lordosis/straightening of the spine
  - ☐ Abnormal soft tissue contour
  - ☐ Possible ligamentous injury
  - ☐ Other findings: [Value not provided]
- ○ Can not be classified by reviewer (Check all that apply)
  - ☐ Need full plain film radiology report from site [Value not provided]
  - ☐ Needs further discussion [Value not provided]

reviewResult $2

NM = Normal
AT = Abnormal/Traumatic
EQ = Equivocal
NC = Cannot be classified by reviewer

reviewResult AT_DF #

reviewResult AT_LI #

reviewResult AT_OA#

1 = Checked
0 = Not Checked

reviewResult EQ_PF #

reviewResult EQ_LL #

reviewResult EQ_AS#

reviewResult EQ_LI#

reviewResult EQ_OF#

1 = Checked
0 = Not Checked

Radiology Review 3

Adequate visualization by plain film?

- ○ Yes
- ○ No
- ◉ Not Documented

reviewResult IV $4

IVY = Yes
IVN = No
IVND = Not Documented

Is there a congenital abnormality of the cervical spine?

- ◉ Yes
- ○ No

reviewResult CA $3

CAY = Yes
CAN = No

kappa (1 of 16)

KAPPA form

site #   caseid $7   controltype $4

case = cervical spine injury
ems = ems control
moi = mechanism of injury control
ran = random control

studysubjectid $7

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form

On arrival to the study site was the patient ambulatory?

- ○ Yes
- ○ No
- ○ Pre-ambulatory/Non-ambulatory
- ○ Not documented

PtAmbulatoryPriorArrival $2

Y = Yes
N = No
3 = Pre-ambulatory/Non-ambulatory
ND = Not documented

Was there history of loss of consciousness - LOC?

- ○ Yes
- ○ No
- ○ Suspected - but not sure
- ○ Unknown
- ○ Not documented

HxLOCSite $2

Y = Yes
N = No
3 = Suspected, but not sure
U = Unknown
ND = Not documented

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form/Glasgow Coma Score

Is a Glasgow Coma Score (GCS) documented?

○ Section Scores (Eye, Verbal, Motor) not documented — SectionGCSAvailable $2

Y = Yes
ND = Not documented

    ○ Total GCS available

      Total GCS: [_____] TotalGCSManual $4

    ○ Total GCS not documented — TotalGCSAvailable $4

Y = Yes
ND = Not documented

○ Section Scores (Eye, Verbal, Motor) documented

    Indicate the score for Eye, Verbal, Motor if present in the record

    Eye

      ○ Spontaneous

      ○ Verbal — GCSEye $4

      ○ Pain

      ○ None

4 = Spontaneous
3 = Verbal
2 = Pain
1 = None

    Verbal

      ○ Oriented - coos/babbles

      ○ Confused - irritable/cries

      ○ Inappropriate words - cries to pain — VerbalGCS $4

      ○ Incomprehensible sounds - moans

      ○ None

5 = Oriented - coos/babbles
4 = Confused - irritable/cries
3 = Inappropriate words - cries to pain
2 = Incomprehensible sounds - moans
1 = None

    Motor

      ○ Follow Commands

      ○ Localizes pain - withdraws to touch

      ○ Withdraws to pain

      ○ Abnormal flexure posturing — MotorGCS $4

      ○ Abnormal extension posturing

      ○ None

6 = Follow Commands
5 = Localizes pain [withdraws to touch]
4 = Withdraws to pain
3 = Abnormal flexure posturing
2 = Abnormal extension posturing
1 = None

    Calculated Total GCS: [_____]

TotalGCS $4

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form/Mental Status

Is there documentation of the patient`s mental status using a narrative description or an AVPU category?

○ Yes   **AVPU $1**

○ No

Y = Yes
N = No

If yes, check the statement which best describes the patient`s mental status

○ (A)The patient was described as being awake or alert or oriented.

○ (V)The patient was described as responsive to verbal stimuli.

○ (P)The patient was described as responsive to pain.   **AVPUDetails $1**

○ (U)The patient was described as unresponsive to pain.

○ Term used that cannot be mapped to AVPU

○ Comatose

○ Obtunded   **AVPUMental $3**

○ Unconscious

○ Other   **AVPUMentaltxt $78**

C = Comatose
OB = Obtunded
U = Unconscious
OTH = Other

A = (A)The patient was described as being awake or alert or oriented.

V = (V)The patient was described as responsive to verbal stimuli.

P = (P)The patient was described as responsive to pain.

U = (U)The patient was described as unresponsive to pain.

N = Term used that cannot be mapped to AVPU

Derived variable included in the kappa dataset:

Variable	Type	Length	Label	Values	Details
AVPUMentaltxtCat	$	9	Other Term used that cannot be mapped to AVPU (Categorized)	ALTERED UNALTERED	Open text entered into the AVPUMentaltxt field was independently reviewed by three study investigators. They each categorized the response as ALTERED or UNALTERED. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form/Clinical Interview and Exam

Did the patient complain of pain? | PtCompPain $3

- ○ Yes and the regions of the body affected are documented
- ○ Yes but the regions of body affected are NOT documented
- ○ No
- ○ Preverbal/Nonverbal
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

Y = Yes and the regions of the body affected are documented
YND = Yes and the regions of body affected are NOT documented
N = No
P=Preverbal/Nonverbal
S = Sedated or paralyzed
NA = Not applicable
ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

- ☐ Head | PtCompPainHead #
- ☐ Face | PtCompPainFace #
- ☐ Neck | PtCompPainNeck #

1 = Checked
0 = Not Checked

If neck pain was indicated, did the pain increase with neck movement?

- ○ Yes
- ○ No | PtCompPainNeckMove $2
- ○ Not documented

Y = Yes
N = No
ND = Not documented

- ☐ Chest | PtCompPainChest #
- ☐ Back | PtCompPainBack #
- ☐ Flank | PtCompPainFlank #
- ☐ Abdomen | PtCompPainAbd #
- ☐ Pelvis | PtCompPainPelvis #
- ☐ Extremities | PtCompPainExt #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

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Did the patient have tenderness on exam?

○ Yes and the regions of the body affected are documented
○ Yes and the regions of body affected are NOT documented
○ No
○ Sedated or paralyzed   PtTender $3
○ Not applicable
○ Not documented

> Y = Yes and the regions of the body affected are documented
> YND = Yes and the regions of body affected are NOT documented
> N = No
> S = Sedated or paralyzed
> NA = Not applicable
> ND = Not documented

If yes and regions of the body affected are documented, please indicate which regions of the body were affected:

☐ Head   PtTenderHead #
☐ Face   PtTenderFace #
☐ Neck   PtTenderNeck #

> 1 = Checked
> 0 = Not Checked

If checked, please check all descriptors that apply:

☐ Anterior   PtTenderNeckAnt #
☐ Posterior   PtTenderNeckPos #
☐ Lateral   PtTenderNeckLat #
☐ Midline   PtTenderNeckMid #
☐ Level   PtTenderNeckLevel #

> 1 = Checked
> 0 = Not Checked

   ☐ C1   PtTenderNeckLevelC1 #
   ☐ C2   PtTenderNeckLevelC2 #
   ☐ C3   PtTenderNeckLevelC3 #
   ☐ C4   PtTenderNeckLevelC4 #
   ☐ C5   PtTenderNeckLevelC5 #
   ☐ C6   PtTenderNeckLevelC6 #
   ☐ C7   PtTenderNeckLevelC7 #

> 1 = Checked
> 0 = Not Checked

PtTenderNeckOther #

> 1 = Checked
> 0 = Not Checked

☐ Other   PtTenderNeckOthertxt $51

☐ Chest   PtTenderChest #
☐ Back   PtTenderBack #
☐ Flank   PtTenderFlank #
☐ Abdomen   PtTenderAbd #
☐ Pelvis   PtTenderPelvis #
☐ Extremities   PtTenderExt #

> 1 = Checked
> 0 = Not Checked

kappa (6 of 16)

Did the patient have limited range of motion of the neck or torticollis?
- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ○ C-collar in place
- ○ Not applicable
- ○ Not documented

LimitedRangeMotion $2

Y = Yes and the regions of the body affected are documented
N = No
3 = Sedated or paralyzed
4 = C-collar in place
NA = Not applicable
ND = Not documented

Aside from tenderness on exam, was there any other clinical evidence of substantial injuries?
- ○ Yes
- ○ No
- ○ Not documented

OtherInjuries $2

Y = Yes
N = No
ND = Not documented

If yes, check all affected regions of the body:
- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

OtherInjuriesHead #
OtherInjuriesFace #
OtherInjuriesNeck #
OtherInjuriesChest #
OtherInjuriesBack #
OtherInjuriesFlank #
OtherInjuriesAbd #
OtherInjuriesPelvis
OtherInjuriesExt #

1 = Checked
0 = Not Checked

Derived variables included in the kappa dataset:

Variable	Type	Length	Label	Values	Details
PtTenderNeckOtherTxtCat	$	3	Other neck tenderness finding deemed consistent with posterior midline neck tenderness by consensus panel	Yes, No	Three study investigators independently reviewed open text entered into the PtTenderNeckOthertxt and flagged responses that they considered consistent with posterior midline neck tenderness. Discrepancies were discussed and consensus reached, with YES identifying those that were consistent with the definition
OtherNeuroDeficitDescCat	$	3	Other neurologic finding deemed consistent with spine injury by consensus panel	Yes, No	Open text entered into the OtherNeuroDeficitDesc field was independently reviewed by three study investigators. Each response was categorized as YES or NO other neurological finding consistent with spine injury. Discrepancies were discussed and consensus reached. Only the final categorization is included in this dataset.

Aside from tenderness on exam, was there any other clinical evidence of minor injuries?

- ○ Yes
- ○ No
- ○ Not Documented

MinorInjuries $2

Y = Yes
N = No
ND = Not documented

If yes, check all affected regions of the body:

- ☐ Head
- ☐ Face
- ☐ Neck
- ☐ Chest
- ☐ Back
- ☐ Flank
- ☐ Abdomen
- ☐ Pelvis
- ☐ Extremities

MinorInjuriesHead #
MinorInjuriesFace #
MinorInjuriesNeck #
MinorInjuriesChest #
MinorInjuriesBack #
MinorInjuriesFlank #
MinorInjuriesAbs #
MinorInjuriesPelv #
MinorInjuriesExt #

1 = Checked
0 = Not Checked

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form/Neurological Examination

Did the patient have any paresthesias (abnormal tactile sensation)?

- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtParesthesias $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have any loss of sensation (loss of feeling in any region of body)?

- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtSensoryLoss $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

kappa (8 of 16)

Did the patient have any extremity weakness?
- ○ Yes
- ○ No
- ○ Sedated or paralyzed
- ○ Not applicable
- ○ Not documented

PtExtremityWeakness $2

Y = Yes
N = No
3 = Sedated or paralyzed
NA = Not applicable
ND = Not documented

Did the patient have a neurological deficit other than paresthesias, loss of sensation or extremity weakness?
- ○ Yes
- ○ No
- ○ Not Applicable
- ○ Not Documented

OtherNeuroDeficit $2

Y = Yes
N = No
NA = Not applicable
ND = Not documented

If yes, please describe the neurological deficit:

OtherNeuroDeficitDesc $79

CLINICAL PRESENTATION AT THE STUDY SITE -- KAPPA Form/Clinical Interventions

Did the patient undergo interventions for cervical stabilization at the study site?
- ○ Yes
- ○ No

IntervForCervicalStab $1

Y = Yes
N = No

If yes, check all interventions that apply:
- ☐ Soft Collar
- ☐ Rigid Collar
- ☐ Brace
- ☐ Traction
- ☐ Surgical
  - ☐ Halo
  - ☐ Internal Fixation
- ☐ Other

IntervForCervicalStabSCollar #
IntervForCervicalStabRCollar #
IntervForCervicalStabBrace #
IntervForCervicalStabTraction #
IntervForCervicalStabSurgical #
IntervForCervicalStabHalo #
IntervForCervicalStabIntFix #
IntervForCervicalStabIntFixtxt $122
IntervForCervicalStabOther #
IntervForCervicalStabOthertxt $58

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

N = Normal
DTH = Death during Hospitalization
PND = Persistent Neurological Deficit

What was the patient`s neurological outcome at discharge from the study site?

- ○ Normal
- ○ Death during Hospitalization
- ○ Persistent Neurological Deficit

OutcomeStudySite $3

Please classify the patient`s cognitive function

OutcomeStudySiteNeuro $3

- ○ Normal or good recovery
- ○ Moderate disability (Cognitive disabilities but are able to live independently.)
- ○ Severe disability (Conscious but have cognitive disabilities that render them dependent.)
- ○ Persistent vegetative state

NR = Normal or good recovery
MD = Moderate disability (Cognitive disabilities but are able to live independently.)
SD = Severe disability (Conscious but have cognitive disabilities that render them dependent.)
PVS = Persistent vegetative state

Please classify mobility

OutcomeStudySiteMobility $2

- ○ Normal
- ○ Dependent Ambulation - cane, walker, etc
- ○ Wheelchair dependent
  - ☐ Complete paraplegia
- ○ Immobile
  - ☐ Complete quadriplegia

OutcomeStudySiteMobility1 #
OutcomeStudySiteMobility2 #

1 = Checked
0 = Not Checked

N = Normal
DA = Dependent Ambulation - cane, walker, etc
WD = Wheelchair dependent
I = Immobile

Please indicate bowel function

- ○ Normal
- ○ Incontinence of stool

OutcomeStudySiteBowel $1

N = Normal
I = Incontinence of stool

Please classify bladder function

- ○ Normal
- ○ Incontinence of urine
- ○ Chronic Catheterization

OutcomeStudySiteUrine $1

N = Normal
I = Incontinence of urine
C = Chronic Catheterization

CLINICAL PRESENTATION IN THE FIELD -- KAPPA FORM

ALL information in the Field Section must come from field documentation (EMS Run Sheet) not the hospital records. Please make sure that the EMS run sheet you are abstracting represents the scene (primary) response and not an interhospital transfer.

Field Documentation

FieldDocumentation $3

EMS = Patient was transported by EMS from the scene and the record is available

OTR = Patient was not transported by EMS from the scene

NR = Patient was transported from the scene by EMS, but the record is not available

- ○ Patient was transported by EMS from the scene and the record is available
- ○ Patient was not transported by EMS from the scene
- ○ Patient was transported from the scene by EMS, but the record is not available

Was patient ambulatory prior to EMS arrival?

PtAmbulatoryPriorEMSArrival $2

Y = Yes
N = No
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

- ○ Yes
- ○ No
- ○ Pre-ambulatory/Non-ambulatory
- ○ Not documented

What was patient`s position on EMS arrival?

PatientsPosition $5

S = Sitting
W = Walking/standing
L = Lying down
IDEMS = Immobilized prior to EMS transport crew arrival
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

- ○ Sitting
- ○ Walking/standing
- ○ Lying down
- ○ Immobilized prior to EMS transport crew arrival
- ○ Pre-ambulatory/Non-ambulatory
- ○ Not documented

Was there history of loss of consciousness (LOC)?

HxLOCField $2

Y = Yes
N = No
S = Suspected, but not sure
U = Unknown
ND = Not documented

- ○ Yes
- ○ No
- ○ Suspected, but not sure
- ○ Unknown
- ○ Not documented

CLINICAL PRESENTATION AT AN OUTSIDE HOSPITAL ED -- KAPPA FORM

ALL information in the outside ED section must come form the outside ED documentation not the EMS run sheet or the study site medical record.

Outside Hospital Emergency Department (ED) Documentation

○ Patient was evaluated at an outside hospital emergency department (ED) prior to study site, and the record is available

○ Patient presented at an outside hospital ED, but the record is unavailable

EDDocumentation $4

○ Patient presented directly to the study site

On arrival to the outside ED was the patient ambulatory?

○ Yes

○ No

PtAmbulatoryPriorArrivalED $2

○ Pre-ambulatory/Non-ambulatory

○ Not documented

Was there history of loss of consciousness (LOC)?

○ Yes

HxLOCED $2

○ No

○ Suspected - but not sure

○ Unknown

○ Not Documented

ED = Patient was evaluated at an outside hospital emergency department (ED) prior to study site, and the record is available

EDU = Patient presented at an outside hospital ED, but the record is unavailable

SITE = Patient presented directly to the study site

Y = Yes
N = No
S = Suspected, but not sure
U = Unknown
ND = Not documented

Y = Yes
N = No
PA = Pre-ambulatory/Non-ambulatory
ND = Not documented

INJURY MECHANISM -- KAPPA FORM/Primary Mechanism of Injury. Check only One

1. Occupant in Motor Vehicle Collision (MVC)

    ○ Motor Vehicle Collision

InjuryPrimaryMechanism $2

1 = Motor Vehicle Collision
2 = Other Motorized Transport Crash
3 = Bike rider struck by moving vehicle
4 = Bike collision or fall from bike
5 = Other non-motorized transport struck by moving vehicle
6 = Pedestrian struck by moving vehicle
7 = Blunt injury to head/neck
8 = Sports injury
9 = Fall from elevation
10 = Fall down stairs
11 = Fall from standing/walking/running
12 = Diving injury
13 = Hanging injury
14 = Other
20 = Other non-motorized transport collision or fall from non-motorized transport while riding
ND = Not documented

Type of Collision - Check all that apply
    ☐ Rear end collision
    ☐ Head on collision
    ☐ Side Impact
    ☐ Rollover
    ☐ Ejected from automobile
    ☐ Death in the same collision

MVCREC #
MVCHOC #
MVCSI #
MVCRO #
MVCEFA #
MVCDSC #

1 = Checked
0 = Not Checked

Speed of patients vehicle
    ○ <= 25MPH - residential speed
    ○ 26 - 54 MPH
    ○ >= 55 MPH - highway speed
    ○ Vehicle speed not documented

MVCSpeed #

1 = <= 25MPH - residential speed
2 = 26 - 54 MPH
3 = >= 55 MPH - highway speed
Missing = Vehicle speed not documented

Was a passenger restraint system used?
    ○ Yes - Child safety seat, booster seat, seatbelts or other
    ○ No
    ○ Not documented

PassRestraint #

1 = Yes - Child safety seat, booster seat, seatbelts or other
0 = No
Missing = Not documented

2. Other Motorized transport crash (ATV, 4 Wheeler, motorcycle, etc)   Refer to InjuryPrimaryMechanism annotation on page 97
   ○ Other Motorized Transport Crash [ ]   InjuryPrimaryMechanismtxt $160

   Speed of patient`s vehicle
       ○ <= 25MPH - residential speed
       ○ 26 - 54 MPH   OMTSpeed#
       ○ >= 55 MPH - highway speed
       ○ Vehicle speed not documented

   1 = <= 25MPH - residential speed
   2 = 26 - 54 MPH
   3 = >= 55 MPH - highway speed
   Missing = Vehicle speed not documented

   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
       ○ Yes   clotheslining $2
       ○ No
       ○ Not documented
   Was the child wearing a protective helmet?
       ○ Yes
       ○ No   helmet $2
       ○ Not documented

   Y = Yes
   N = No
   ND = Not documented

3. Bike rider struck by moving vehicle   Refer to InjuryPrimaryMechanism annotation on page 97
   ○ Bike rider struck by moving vehicle
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
       ○ Yes   clotheslining $2
       ○ No
       ○ Not documented
   Was the child wearing a protective helmet?
       ○ Yes
       ○ No   helmet $2
       ○ Not documented

   Y = Yes
   N = No
   ND = Not documented

4. Bike collision or fall from bike while riding
Refer to InjuryPrimaryMechanism annotation on page 97
   ○ Bike collision or fall from bike
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   ○ Yes
   clotheslining $2
   ○ No
   Y = Yes
   N = No
   ND = Not documented
   ○ Not documented
   Was the child wearing a protective helmet?
   ○ Yes
   ○ No
   helmet $2
   ○ Not documented

5. Other Non-motorized transport (go cart, scooter, wagon etc) struck by moving vehicle
Refer to InjuryPrimaryMechanism annotation on page 97
   ○ Other non-motorized transport
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   ○ Yes
   clotheslining $2
   ○ No
   Y = Yes
   N = No
   ND = Not documented
   ○ Not documented
   Was the child wearing a protective helmet?
   ○ Yes
   ○ No
   helmet $2
   ○ Not documented

6. Other Non-motorized transport (go cart, scooter, wagon etc) collision or fall from non-motorized transport while riding
Refer to InjuryPrimaryMechanism annotation on page 97
   ○ Other non-motorized transport
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck while the patient was riding a motorized or non-motorized vehicle?
   ○ Yes
   clotheslining $2
   ○ No
   Y = Yes
   N = No
   ND = Not documented
   ○ Not documented
   Was the child wearing a protective helmet?
   ○ Yes
   ○ No
   helmet $2
   ○ Not documented

7. Pedestrian struck by moving vehicle
  ○ Pedestrian struck by moving vehicle   *Refer to InjuryPrimaryMechanism annotation on page 97*

8. Blunt injury to the head/neck   *Refer to InjuryPrimaryMechanism annotation on page 97*
  ○ Blunt injury to the head/neck
   ☐ Assault   Assault #
    ☐ Suspected or confirmed child abuse   ChildAbuse #   1 = Checked / 0 = Not Checked
     ☐ Shaken baby syndrome
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?   ShakenBabySyndrome #
   ○ Yes   clotheslining $2
   ○ No
   ○ Not documented   Y = Yes / N = No / ND = Not documented

9. Sports Injury (describe)   *Refer to InjuryPrimaryMechanism annotation on page 97*
  ○ Sports injury   InjuryPrimaryMechanismtxt $160
   Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?
   ○ Yes   clotheslining $2
   ○ No
   ○ Not documented   Y = Yes / N = No / ND = Not documented
   Was the child wearing a protective helmet?
   ○ Yes
   ○ No   helmet $2
   ○ Not documented

10. Fall from elevation (estimated height in feet)   *Refer to InjuryPrimaryMechanism annotation on page 97*
  ○ Fall from elevation
   ○ < 3 ft
   ○ >= 3 ft to < 10 ft   FallFromElevation #   1 = "< 3 ft"
   ○ >= 10ft   2 = ">= 3 ft to < 10 ft"
   ○ Not documented   3 = ">= 10ft" / Missing = Not documented

11. Fall down stairs (estimated # of stairs)
- ○ Fall down stairs
  - ○ 5 or less
  - ○ 6-15   FallDownStairs #
  - ○ > 15
  - ○ Not documented

> 1 = 5 or less
> 2 = 6-15
> 3 = > 15
> Missing = Not documented

12. Fall from standing/walking/running
- ○ Fall from standing/walking/running

13. Diving Injury
- ○ Diving injury

14. Hanging Injury
- ○ Hanging injury

15. Other (describe)
- ○ Other   InjuryPrimaryMechanismtxt $160

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?
- ○ Yes
- ○ No   clotheslining $2
- ○ Not documented

Was the child wearing a protective helmet?
- ○ Yes
- ○ No
- ○ Not documented   helmet $2

> Y = Yes
> N = No
> ND = Not documented

16. Not Documented
- ○ Not documented