

**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

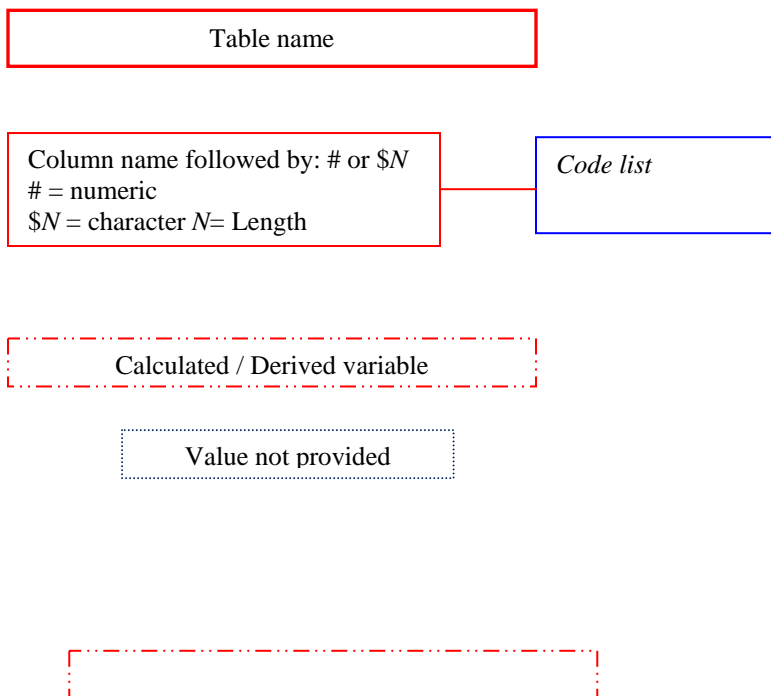
**Primary Investigator:
David M. Jaffe, MD
Julie Leonard, MD MPH**

**Washington University School of Medicine
St. Louis, Missouri**

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Annotations key:



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.

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

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

Data not provided, forms provided for reference

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?		
<input checked="" type="radio"/> Yes		
<input type="radio"/> No		
Was the patient evaluated at the HEDA for trauma related injuries?		
<input checked="" type="radio"/> Yes		
<input type="radio"/> 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)		
<input checked="" type="radio"/> Yes		
<input type="radio"/> 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)		
<input checked="" type="radio"/> Yes		
<input type="radio"/> 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)		
<input checked="" type="radio"/> Yes		
<input type="radio"/> No		
Did the patient present at the HEDA for evaluation of their injuries prior to their 16th birthday?		
<input checked="" type="radio"/> Yes		
<input type="radio"/> No		
Did the patient visit at the HEDA occur between Jan 1, 2000 and Dec 31, 2004?		
<input checked="" type="radio"/> Yes		
<input type="radio"/> No		

C-Spine Annotated PUD eCRF

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 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 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

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

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.

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

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

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.

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

C-Spine Annotated PUD eCRF

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

☐ Male

☐ Not Documented

Gender \$2

M = Male
F = Female
ND = Not Documented

Race

☒ White

☐ Black

☐ Asian

☐ American Indian/Alaskan Native

☐ Pacific Islander

☐ Other Value not provided

☐ Not Documented

Race \$2

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

Ethnicity

☒ Hispanic

☐ Non-Hispanic

☐ Other Value not provided

☐ Not documented

Ethnicity \$2

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

C-Spine Annotated PUD eCRF

demographics (2 of 2)

Payor

PayorType \$2

☐ Champus/Tricare/Military Insurance

☒ Commercial Insurance

☐ Fee for service

☒ Managed care

☐ Not documented

☐ Other Government

☐ Self/uninsured

☐ Workman`s Compensation

☐ Medicaid

☐ Fee for service

☐ Managed care

☐ Not documented

☒ Not documented

PayorTypeCI \$3

Value not provided

FEE = Fee for service
MC = Managed care
ND = Not Documented

PayorTypeMA \$3

FEE = Fee for service
MC = Managed care
ND = Not Documented

CH = Champus/Tricare/Military Insurance
CI = Commercial Insurance
OG = Other Government
SU = Self/uninsured
WC = Workman`s Compensation
MA = Medicaid
ND = Not Documented

C-Spine Annotated PUD eCRF

clinicalpresentationfield (1 of 10)

Clinical Presentation In The Field

site #

caseid \$7

controltype \$4

studysubjectid \$7

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

☒ 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

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: EMSArrivalDate #

(Format: mm/dd/yyyy):

☐ Not documented EMSArrivalDateND #

Time of arrival at scene: EMSArrivalTime \$5

(Format: HH:MM):

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

Estimated time of arrival at scene

☐ 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

Was patient ambulatory prior to EMS arrival?

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

PtAmbulatoryPriorEMSArrival \$2

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

1 = Checked
0 = Not Checked

1 = Checked
0 = Not Checked

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

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

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

clinicalpresentationfield (3 of 10)

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 \$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

☐ None

GCSEye \$1

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

Verbal

☐ Oriented - coos/babbles

☐ Confused - irritable/cries

☐ Inappropriate words - cries to pain

☐ 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

☐ 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

C-Spine Annotated PUD eCRF

clinicalpresentationfield (4 of 10)

Mental Status

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

- ☒ Yes
☐ No

AVPU \$1

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 described as unresponsive to pain.
☒ Term used that cannot be mapped to AVPU

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

- ☐ Comatose
☐ Obtunded
☐ Unconscious
☐ Other

AVPUMental \$3

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

AVPUMentaltxt \$97

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.

C-Spine Annotated PUD eCRF

clinicalpresentationfield (5 of 10)

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

C-Spine Annotated PUD eCRF

clinicalpresentationfield (6 of 10)

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

PtTenderOther #

PtTenderOthertxt \$22

1 = Checked
 0 = Not Checked

PtTenderNeckLevelC1 #

PtTenderNeckLevelC2 #

PtTenderNeckLevelC3 #

PtTenderNeckLevelC4 #

PtTenderNeckLevelC5 #

PtTenderNeckLevelC6 #

PtTenderNeckLevelC7 #

1 = Checked
 0 = Not Checked

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.

C-Spine Annotated PUD eCRF

clinicalpresentationfield (7 of 10)

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

PtTenderChest #

PtTenderBack #

PtTenderFlank #

PtTenderAbd #

PtTenderPelvis #

PtTenderExt #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

clinicalpresentationfield (8 of 10)

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

C-Spine Annotated PUD eCRF

clinicalpresentationfield (9 of 10)

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

clinicalpresentationfield (10 of 10)

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
☐ Yes but specific precautions were not documented
☐ No

CervicalSpinePrecautions \$3

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
☐ Rigid long board
☐ Other method of cervical spine immobilization

CervicalSpinePrecautionsCC #

CervicalSpinePrecautionsRLB #

CervicalSpinePrecautionsOther #

CervicalSpinePrecautionsOthertxt \$83

1 = Checked
0 = Not Checked

Is there documentation that medications were given by EMS?

- ☐ Yes
☐ No
If yes, indicate all medications given

MedsbyEMS \$1

Y = Yes
N = No

- ☐ Analgesics
☐ Glucocorticoids
☐ Paralytics
☐ Sedatives
☐ Other

MedsGivenAna #

MedsGivenGlu #

MedsGivenPar #

MedsGivenSed #

MedsGivenOther #

MedsGivenOthertxt \$40

1 = Checked
0 = Not Checked

Is there documentation that the patient was intubated by EMS?

- ☐ Yes
☐ Intubation attempted but unsuccessful
☐ No

IntubatedbyEMS \$2

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

C-Spine Annotated PUD eCRF

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 from the outside ED documentation not the EMS run sheet or the study site medical record.

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

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

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (2 of 12)

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

If yes, indicate all cervical spine precautions:

- ☐ Cervical Collar
- ☐ Rigid long board
- ☐ Other method of C-Spine Immobilization

CervicalSpineImmobilization \$3

CervicalSpineIntervCC #

CervicalSpineIntervRLB #

CervicalSpineIntervOther #

CervicalSpineIntervOthertxt \$82

1 = Checked
0 = Not Checked

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

MedsRecdAna #

MedsRecdGlu #

MedsRecdPar #

MedsRecdSed #

MedsRecdOth #

MedsRecdOthtxt \$31

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (4 of 12)

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 \$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

☐ None

GCSEye \$1

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

Verbal

☐ Oriented - coos/babbles

☐ Confused - irritable/cries

☐ Inappropriate words - cries to pain

☐ 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

☐ 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

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (5 of 12)

Mental Status

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

- ☒ Yes
☐ No

AVPU \$1

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 described as unresponsive to pain.
☒ Term used that cannot be mapped to AVPU

- ☐ Comatose
☐ Obtunded
☐ Unconscious
☐ Other

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

AVPUMentaltxt \$100

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

clinicalpresentationoutside (6 of 12)

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
- ☐ Sedated or paralyzed
- ☐ Not applicable
- ☐ Not documented

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

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
 S = Sedated or paralyzed
 NA = Not applicable
 ND = Not documented

☐ 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

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (7 of 12)

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
☐ 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

PtTenderNeckLevelOther #

1 = Checked
 0 = Not Checked

PtTenderNeckLevelOthertxt \$73

PtTenderNeckLevelC1 #

PtTenderNeckLevelC2 #

PtTenderNeckLevelC3 #

PtTenderNeckLevelC4 #

PtTenderNeckLevelC5 #

PtTenderNeckLevelC6 #

PtTenderNeckLevelC7 #

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

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (9 of 12)

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

C-Spine Annotated PUD eCRF

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

clinicalpresentationoutside (11 of 12)

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 #

CervicalSpinePrecautionsOthertxt \$49

1 = Checked
 0 = Not Checked

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

MedsGivenOthertxt \$81

MedsGivenAna #

MedsGivenGlu #

MedsGivenPar #

MedsGivenSed #

MedsGivenOther #

1 = Checked
 0 = Not Checked

C-Spine Annotated PUD eCRF

clinicalpresentationoutside (12 of 12)

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

OutsideEDDisposition \$3

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

Value not provided

C-Spine Annotated PUD eCRF

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 from the study site documentation not the EMS run sheet or the outside 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

C-Spine Annotated PUD eCRF

clinicalpresentationsite (2 of 13)

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

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

If yes, indicate all cervical spine precautions:

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

CervicalSpineIntervCC #

CervicalSpineIntervRLB #

CervicalSpineIntervOther #

trucks

CervicalSpineIntervOthertxt \$92

CervicalSpineImmobilization \$1

1 = Yes and specific precautions were documented

2 = Yes but specific precautions were not documented.

3 = No

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

clinicalpresentationsite (3 of 13)

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

☒ Yes

☐ No

MedsRecdPriorArrival \$1

Y = Yes
N = No

If yes, please indicate all medications given:

☐ Analgesics

☐ Glucocorticoids

☐ Paralytics

☐ Sedatives

☒ Other - please specify

MedsRecdORtxt \$80

MedsRecdAna #

MedsRecdGlu #

MedsRecdPar #

MedsRecdSed #

MedsRecdOR #

1 = Checked
0 = Not Checked

Does the study site medical 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
3 = Suspected - but not sure
U = Unknown
ND = Not documented

C-Spine Annotated PUD eCRF

clinicalpresentationsite (4 of 13)

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

☐ Pain

☐ None

GCSEye \$4

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

Verbal

☐ Oriented - coos/babbles

☐ Confused - irritable/cries

☐ Inappropriate words - cries to pain

☐ Incomprehensible sounds - moans

☐ None

VerbalGCS \$4

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

☐ Abnormal extension posturing

☐ None

MotorGCS \$4

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

C-Spine Annotated PUD eCRF

clinicalpresentationsite (5 of 13)

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.

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

☒ Term used that cannot be mapped to AVPU

☐ Comatose

☐ Obtunded

☐ Unconscious

☐ Other

AVPUMental \$4

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

AVPUDetails \$4

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

AVPUMentaltxt \$91

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.

C-Spine Annotated PUD eCRF

clinicalpresentationsite (6 of 13)

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
- ☐ Sedated or paralyzed
- ☐ Not applicable
- ☐ Not documented

PtCompPain \$3

PtCompPainHead #

PtCompPainFace #

PtCompPainNeck #

1 = Checked
0 = Not Checked

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
- ☐ 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

C-Spine Annotated PUD eCRF

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

PtTenderHead #

☐ Face

PtTenderFace #

☒ Neck

PtTenderNeck #

If checked, please check all descriptors that apply:

☐ Anterior

PtTenderNeckAnt #

☐ Posterior

PtTenderNeckPos #

☐ Lateral

PtTenderNeckLat #

☐ Midline

PtTenderNeckMid #

☒ Level

PtTenderNeckLevel #

☐ C1

☐ C2

☐ C3

☐ C4

☐ C5

☐ C6

☐ C7

☐ Other

PtTenderNeckOther #

PtTenderNeckOthertxt \$96

1 = Checked
0 = Not Checked

1 = Checked
0 = Not Checked

1 = Checked
0 = Not Checked

1 = Checked
0 = Not Checked

PtTenderNeckLevelC1 #

PtTenderNeckLevelC2 #

PtTenderNeckLevelC3 #

PtTenderNeckLevelC4 #

PtTenderNeckLevelC5 #

PtTenderNeckLevelC6 #

PtTenderNeckLevelC7 #

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.

C-Spine Annotated PUD eCRF

clinicalpresentationsite (8 of 13)

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

PtTenderChest #

PtTenderBack #

PtTenderFlank #

PtTenderAbd #

PtTenderPelvis #

PtTenderExt #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

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

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

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

C-Spine Annotated PUD eCRF

clinicalpresentationsite (10 of 13)

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.

C-Spine Annotated PUD eCRF

clinicalpresentationsite (11 of 13)

YD = Yes and specific precautions documented

YND = Yes but specific precautions were not documented

N = No

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

If Yes, indicate all cervical spine precautions:

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

CSpinePrecautionsCC #

CSpinePrecautionsRLB #

CSpinePrecautionsOther #

CSpinePrecautionsOthertxt \$500

1 = Checked
0 = Not Checked

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

MedsGivenOthertxt \$174

MedsGivenAna #

MedsGivenGlu #

MedsGivenPar #

MedsGivenSed #

MedsGivenOther #

1 = Checked
0 = Not Checked

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

C-Spine Annotated PUD eCRF

clinicalpresentationsite (12 of 13)

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
☐ 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.

C-Spine Annotated PUD eCRF

clinicalpresentationsite (13 of 13)

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 #

1 = Checked
0 = Not Checked

OutcomeStudySiteMobility2 #

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

C-Spine Annotated PUD eCRF

injuryclassification (1 of 15)

Injury Classification Sheet

site #

caseid \$7

controltype \$4

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

INJURY CLASSIFICATION SHEET

studysubjectid \$7

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 #

1 = Checked
0 = Not Checked

☒ Arches

CFracturesAR #

☐ Anterior

☐ Posterior

☐ Jefferson (Anterior and Posterior)

CFracturesType \$1

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

☐ Transverse process

CFracturesTP #

☐ Lateral mass

CFracturesLM #

☐ Other injury

CFracturesOI #

1 = Checked
0 = Not Checked

C1SbFractureOItxt \$61

C-Spine Annotated PUD eCRF

injuryclassification (2 of 15)

☒ C2 Vertebral Fracture

☒ Odontoid

☐ Type 1 -- through tip of the odontoid

☐ Type 2 -- through base of odontoid

☐ Type 3 -- through the body of C2 involving odontoid

☒ Pars interarticularis

☐ Unilateral

☐ Bilateral(Hangmans)

☒ Body other than odontoid

☐ Wedge / Compression

☐ Burst

☐ Teardrop

☒ Loss of height

☒ Other test

☐ Lamina

☐ Lateral mass

☐ Spinous Process

☐ Other injury

C2SbFractureC2 #

1 = Checked
0 = Not Checked

C2SbFractureOdontoid #

C2SbFractureOdType \$100 #

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

C2SbFracturePars #

1 = Checked
0 = Not Checked

C2SbFractureTypePARS #

UN = Unilateral
BI = Bilateral (Hangman's)

C2SbFractureBOOT #

1 = Checked
0 = Not Checked

C2SbFractureBOOTTypeWC #

C2SbFractureBOOTTypeBT #

C2SbFractureBOOTTypeTD #

C2SbFractureBOOTTypeLH #

C2SbFractureBOOTTypeOR #

1 = Checked
0 = Not Checked

C2SbFractureBOOTTypeORtxt \$79

C2SbFractureLA #

C2SbFractureLM #

C2SbFractureSP #

C2SbFractureOR #

1 = Checked
0 = Not Checked

C2SbFractureORtxt \$76

C-Spine Annotated PUD eCRF

injuryclassification (3 of 15)

<input checked="" type="checkbox"/> C3 Fracture	CFracturesC3 #		1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Body	C3SbFractureBY #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Wedge/Compression	C3SbFractureBYWC #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Burst	C3SbFractureBYB #		
<input type="checkbox"/> Teardrop	C3SbFractureBYTD #		
<input type="checkbox"/> Loss of height	C3SbFractureBYLH #		
<input type="checkbox"/> Other	C3SbFractureBYOR #		
	C3SbFractureBYORtxt \$45		1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Pedicle	C3SbFracturePE #		1 = Checked 0 = Not Checked
<input type="radio"/> Unilateral	C3SbFracturePEType \$1		B = Bilateral U = Unilateral
<input type="radio"/> Bilateral			
<input type="checkbox"/> Transverse process	C3SbFractureTP #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Lateral Mass	C3SbFractureLM #		
<input checked="" type="checkbox"/> Facet	C3SbFractureFT #		
<input type="radio"/> Unilateral	C3SbFractureFTType \$1		B = Bilateral U = Unilateral
<input type="radio"/> Bilateral			
<input type="checkbox"/> Lamina	C3SbFractureLA #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Spinous Process	C3SbFractureSP #		
<input type="checkbox"/> Canal Compromise	C3SbFractureCC #		
<input type="checkbox"/> Other injury	C3SbFractureOR #		
	C3SbFractureORtxt \$57		

C-Spine Annotated PUD eCRF

injuryclassification (4 of 15)

<input checked="" type="checkbox"/> C4 Fracture	CFracturesC4 #	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Body	C4SbFractureBY #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Wedge / Compression	C4SbFractureBYWC #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Burst	C4SbFractureBYB #	
<input type="checkbox"/> Teardrop	C4SbFractureBYTD #	
<input type="checkbox"/> Loss of height	C4SbFractureBYLH #	
<input type="checkbox"/> Other	C4SbFractureBYOR #	
	C4SbFractureBYORtxt \$33	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Pedicle	C4SbFracturePE #	1 = Checked 0 = Not Checked
<input type="radio"/> Unilateral	C4SbFracturePEType \$1	B = Bilateral U = Unilateral
<input type="radio"/> Bilateral		
<input type="checkbox"/> Transverse process	C4SbFractureTP #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Lateral Mass	C4SbFractureLM #	
<input checked="" type="checkbox"/> Facet	C4SbFractureFT #	B = Bilateral U = Unilateral
<input type="radio"/> Unilateral	C4SbFractureFTType \$1	
<input type="radio"/> Bilateral		
<input type="checkbox"/> Lamina	C4SbFractureLA #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Spinous Process	C4SbFractureSP #	
<input type="checkbox"/> Canal Compromise	C4SbFractureCC #	
<input type="checkbox"/> Other injury	C4SbFractureOR #	
	C4SbFractureORtxt \$41	

C-Spine Annotated PUD eCRF

injuryclassification (5 of 15)

<input checked="" type="checkbox"/> C5 Fracture	CFracturesC5 #		1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Body	C5SbFractureBY #		
<input type="checkbox"/> Wedge / Compression	C5SbFractureBYWC #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Burst	C5SbFractureBYB #		
<input type="checkbox"/> Teardrop	C5SbFractureBYTD #		
<input type="checkbox"/> Loss of height	C5SbFractureBYLH #		
<input type="checkbox"/> Other	C5SbFractureBYOR #		
	C5SbFractureBYORtxt \$65		1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Pedicle	C5SbFracturePE #		
<input type="radio"/> Unilateral	C5SbFracturePEType \$1		B = Bilateral U = Unilateral
<input type="radio"/> Bilateral			
<input type="checkbox"/> Transverse process	C5SbFractureTP #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Lateral Mass	C5SbFractureLM #		
<input checked="" type="checkbox"/> Facet	C5SbFractureFT #		
<input type="radio"/> Unilateral	C5SbFractureFTType \$1		B = Bilateral U = Unilateral
<input type="radio"/> Bilateral			
<input type="checkbox"/> Lamina	C5SbFractureLA #		1 = Checked 0 = Not Checked
<input type="checkbox"/> Spinous Process	C5SbFractureSP #		
<input type="checkbox"/> Canal Compromise	C5SbFractureCC #		
<input type="checkbox"/> Other injury	C5SbFractureOR #		
	C5SbFractureORtxt \$1		

C-Spine Annotated PUD eCRF

injuryclassification (6 of 15)

<input checked="" type="checkbox"/> C6 Fracture	C6FracturesC6 #	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Body	C6SbFractureBY #	
<input type="checkbox"/> Wedge / Compression <input type="checkbox"/> Burst <input type="checkbox"/> Teardrop <input type="checkbox"/> Loss of height <input type="checkbox"/> Other	C6SbFractureBYWC # C6SbFractureBYB # C6SbFractureBYTD # C6SbFractureBYLH # C6SbFractureBYOR #	1 = Checked 0 = Not Checked
	C6SbFractureBYORtxt \$71	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Pedicle	C6SbFracturePE #	1 = Checked 0 = Not Checked
<input type="radio"/> Unilateral <input type="radio"/> Bilateral	C6SbFracturePEType \$1	B = Bilateral U = Unilateral
<input type="checkbox"/> Transverse process <input type="checkbox"/> Lateral Mass <input checked="" type="checkbox"/> Facet	C6SbFractureTP # C6SbFractureLM # C6SbFractureFT #	1 = Checked 0 = Not Checked
<input type="radio"/> Unilateral <input type="radio"/> Bilateral	C6SbFractureFTType \$1	B = Bilateral U = Unilateral
<input type="checkbox"/> Lamina <input type="checkbox"/> Spinous Process <input type="checkbox"/> Canal Compromise <input type="checkbox"/> Other injury	C6SbFractureLA # C6SbFractureSP # C6SbFractureCC # C6SbFractureOR #	1 = Checked 0 = Not Checked
	C6SbFractureORtxt \$30	

C-Spine Annotated PUD eCRF

injuryclassification (7 of 15)

<input checked="" type="checkbox"/> C7 Fracture	CFracturesC7 #	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Body	C7SbFractureBY #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Wedge / Compression	C7SbFractureBYWC #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Burst	C7SbFractureBYB #	
<input type="checkbox"/> Teardrop	C7SbFractureBYTD #	
<input type="checkbox"/> Loss of height	C7SbFractureBYLH #	
<input type="checkbox"/> Other	C7SbFractureBYOR #	
	C7SbFractureBYORtxt \$21	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/> Pedicle	C7SbFracturePE #	1 = Checked 0 = Not Checked
<input type="radio"/> Unilateral	C7SbFracturePEType \$1	B = Bilateral U = Unilateral
<input type="radio"/> Bilateral		
<input type="checkbox"/> Transverse process	C7SbFractureTP #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Lateral Mass	C7SbFractureLM #	
<input checked="" type="checkbox"/> Facet	C7SbFractureFT #	
<input type="radio"/> Unilateral	C7SbFractureFTType \$1	B = Bilateral U = Unilateral
<input type="radio"/> Bilateral		
<input type="checkbox"/> Lamina	C7SbFractureLA #	1 = Checked 0 = Not Checked
<input type="checkbox"/> Spinous Process	C7SbFractureSP #	
<input type="checkbox"/> Canal Compromise	C7SbFractureCC #	
<input type="checkbox"/> Other injury	C7SbFractureOR #	
	C7SbFractureORtxt \$1	

C-Spine Annotated PUD eCRF

injuryclassification (8 of 15)

Ligamentous injury to cervical spinal column

Were there ligamentous injuries to the cervical spinal column?

- ☒ Yes
☐ No

Ligamentoptions \$1

Y = Yes
N = No

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

<input checked="" type="checkbox"/>	Occipital-atlantal dislocation	LigamentousInjuryOAD #	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/>	C1-2	LigamentousInjuryC12 #	
<input checked="" type="checkbox"/>	Facet Dislocations(jumped)/Perched Facets	C1_2SbLigFD #	1 = Checked 0 = Not Checked
	<input type="radio"/> Unilateral <input type="radio"/> Bilateral	C1_2SbLigFDUB \$1	B = Bilateral U = Unilateral
<input checked="" type="checkbox"/>	Subluxation of one vertebral body on another	C1_2SbLigSL #	1 = Checked 0 = Not Checked
	<input type="checkbox"/> Atlantoaxial rotary subluxation	C1_2SbLigSLARS #	
	<input type="checkbox"/> ADI interval > 5 mm	C1_2SbLigSLADI #	
<input type="checkbox"/>	Angulation	C1_2SbLigAL #	1 = Checked 0 = Not Checked
<input checked="" type="checkbox"/>	Signal change on MRI	C1_2SbLigSC #	
	<input type="checkbox"/> Anterior ligaments/elements	C1_2SbLigSCAL#	
	<input type="checkbox"/> Disc	C1_2SbLigSCDC #	
	<input type="checkbox"/> Within spinal canal -- including hematoma	C1_2SbLigSCWSC#	
	<input type="checkbox"/> 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 C2_3SbLigFDUB \$1 B = Bilateral
U = Unilateral

☐ Bilateral

☐ Subluxation of one vertebral body on another C2_3SbLigSL # 1 = Checked
0 = Not Checked

☐ Angulation C2_3SbLigAL #

☒ - C2_3SbLigSC # 1 = Checked
0 = Not Checked

☐ Signal change on MRI C2_3SbLigSCAL# 1 = Checked
0 = Not Checked

☐ Anterior ligaments/elements C2_3SbLigSCDC #

☐ Disc C2_3SbLigSCWSC#

☐ Within spinal canal -- including hematoma C2_3SbLigSCPL #

☐ Posterior ligaments/elements

C-Spine Annotated PUD eCRF

injuryclassification (10 of 15)

☒ C3-4

☒ Ligamentous Injury C34 # 1 = Checked
0 = Not Checked

☒ Facet Dislocations(jumped)/Perched Facets C3_4SbLigFD # 1 = Checked
0 = Not Checked

☐ Unilateral C3_4SbLigFDUB \$1 B = Bilateral
U = Unilateral

☐ Bilateral

☐ Subluxation of one vertebral body on another C3_4SbLigSL # 1 = Checked
0 = Not Checked

☐ Angulation C3_4SbLigAL # 1 = Checked
0 = Not Checked

☒ - C3_4SbLigSC # 1 = Checked
0 = Not Checked

☒ Signal change on MRI

☐ 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

C-Spine Annotated PUD eCRF

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 C4_5SbLigFDUB \$1 B = Bilateral
U = Unilateral

☐ Bilateral

☐ Subluxation of one vertebral body on another C4_5SbLigSL # 1 = Checked
0 = Not Checked

☐ Angulation C4_5SbLigAL #

☒ 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#

☐ Posterior ligaments/elements C4_5SbLigSCPL #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

injuryclassification (12 of 15)

☒ C5-6

☒ Ligamentous Injury C5/6 # 1 = Checked
0 = Not Checked

☒ Facet Dislocations(jumped)/Perched Facets C5_6SbLigFD # 1 = Checked
0 = Not Checked

☐ Unilateral C5_6SbLigFDUB \$1 B = Bilateral
U = Unilateral

☐ Bilateral

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

☐ Angulation C5_6SbLigAL # 1 = Checked
0 = Not Checked

☒ - C5_6SbLigSC # 1 = Checked
0 = Not Checked

☒ Signal change on MRI C5_6SbLigSCAL# 1 = Checked
0 = Not Checked

☐ Anterior ligaments/elements C5_6SbLigSCDC # 1 = Checked
0 = Not Checked

☐ Disc C5_6SbLigSCWSC# 1 = Checked
0 = Not Checked

☐ Within spinal canal -- including hematoma C5_6SbLigSCPL # 1 = Checked
0 = Not Checked

☐ Posterior ligaments/elements

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 #

☒ - C6_7SbLigSC # 1 = Checked
0 = Not Checked

☒ Signal change on MRI C6_7SbLigSCAL# 1 = Checked
0 = Not Checked

☐ Anterior ligaments/elements C6_7SbLigSCDC #

☐ Disc C6_7SbLigSCWSC#

☐ Within spinal canal -- including hematoma C6_7SbLigSCPL #

☐ Posterior ligaments/elements

C-Spine Annotated PUD eCRF

injuryclassification (14 of 15)

<input checked="" type="checkbox"/> C7-T1	LigamentousInjuryC7T1 #	1 = Checked 0 = Not Checked	
<input checked="" type="checkbox"/> Facet Dislocations(jumped)/Perched Facets	C7_T1SbLigFD #	1 = Checked 0 = Not Checked	
<input type="radio"/> Unilateral <input type="radio"/> Bilateral	C7_T1SbLigFDUB \$1	B = Bilateral U = Unilateral	
<input type="checkbox"/> Subluxation of one vertebral body on another	C7_T1SbLigSL #	1 = Checked 0 = Not Checked	
<input type="checkbox"/> Angulation	C7_T1SbLigAL #		
<input checked="" type="checkbox"/> -	C7_T1SbLigSC #	1 = Checked 0 = Not Checked	
<input type="checkbox"/> Anterior ligaments/elements	C7_T1SbLigSCAL#		
<input type="checkbox"/> Disc	C7_T1SbLigSCDC #		
<input type="checkbox"/> Within spinal canal -- including hematoma	C7_T1SbLigSCWSC#		
<input type="checkbox"/> Posterior ligaments/elements	C7_T1SbLigSCPL #		1 = Checked 0 = Not Checked

C-Spine Annotated PUD eCRF

injuryclassification (15 of 15)

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

☐ No

☐ Not Applicable - No MRI performed

CSpineSignalChange \$2

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

☐ No

CordInjuryNoRadiographic \$1

Y = Yes

N = No

C-Spine Annotated PUD eCRF

injurymechanism (1 of 9)

Injury Mechanism

site #

caseid \$7

controltype \$4

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

INJURY MECHANISM

studysubjectid \$7

[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 occurred:

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

☐ 08:01 - 12:00

☐ 12:01 - 16:00

☐ 16:01 - 20:00

☐ 20:01 - 00:00

☐ Unable to estimate

EstimateTimeInjury \$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
U = Unable to estimate

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

Mechanism:

Location:

[Add](#)

1 more entry



ICD9MechInjury1 \$6

ICD9MechInjury2 \$6

ICD9MechInjury3 \$6

ICD9Location1 \$6

ICD9Location2 \$6

ICD9Location3 \$6

C-Spine Annotated PUD eCRF

injurymechanism (2 of 9)

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

1. Occupant in Motor Vehicle Collision (MVC)

☒ Motor Vehicle Collision

InjuryPrimaryMechanism \$2

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

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

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

C-Spine Annotated PUD eCRF

injurymechanism (3 of 9)

2. Other Motorized transport crash (ATV, 4 Wheeler, motorcycle, etc)

[Refer to InjuryPrimaryMechanism annotation on page 66](#)



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

C-Spine Annotated PUD eCRF

injurymechanism (4 of 9)

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

clotheslining \$2

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

helmet \$2

☐ No

☐ Not documented

Y = Yes

N = No

ND = 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

clotheslining \$2

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

helmet \$2

☐ No

☐ Not documented

Y = Yes

N = No

ND = Not documented

C-Spine Annotated PUD eCRF

injurymechanism (5 of 9)

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

clotheslining \$2

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

helmet \$2

☐ No

☐ Not documented

Y = Yes
N = No
ND = Not documented

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

clotheslining \$2

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

helmet \$2

☐ No

☐ Not documented

Y = Yes
N = No
ND = Not documented

C-Spine Annotated PUD eCRF

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

Assault #

☐ Suspected or confirmed child abuse

ChildAbuse #

☐ Shaken baby syndrome

ShakenBabySyndrome #

1 = Checked
0 = Not Checked

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

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

clotheslining \$2

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

helmet \$2

☐ No

☐ Not documented

Y = Yes
N = No
ND = Not documented

C-Spine Annotated PUD eCRF

injurymechanism (7 of 9)

10. Fall from elevation (estimated height in feet)

Refer to InjuryPrimaryMechanism annotation on page 66

☒ Fall from elevation

- ☐ < 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)

Refer to InjuryPrimaryMechanism annotation on page 66

☒ Fall down stairs

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

FallDownStairs #

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

C-Spine Annotated PUD eCRF

injurymechanism (8 of 9)

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

15. Other (describe)

Refer to InjuryPrimaryMechanism annotation on page 66



Other

InjuryPrimaryMechanismtxt \$156

Was the injury a result of an object (rope / cable / stick or similar item) striking the neck?

☐ Yes

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

☐ No

☐ Not documented

clotheslining \$2

helmet \$2

Y = Yes

N = No

ND = 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☐ Not documented

HeadFirst \$2

Y = Yes

N = No

ND = 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

C-Spine Annotated PUD eCRF

medicalhistory (1 of 5)

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](#)

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[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 condition 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)

Describe:

Value not provided

BodyAsAWhole0 #

BodyAsAWhole1 #

BodyAsAWhole2 #

BodyAsAWhole3 #

BodyAsAWhole4 #

BodyAsAWhole5 #

BodyAsAWhole6 #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

medicalhistory (2 of 5)

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

C-Spine Annotated PUD eCRF

medicalhistory (3 of 5)

Gastrointestinal

- ☐ Normal
☒ Abnormal

Gastrointestinal \$1

N = Normal
A = Abnormal

Describe:

Value not provided

Genitourinary/ Renal/ Reproductive

- ☐ Normal
☒ Abnormal

Genitourinary \$1

N = Normal
A = Abnormal

☐ Renal Osteodystrophy

☐ Other(Please provide a description below)

Genitourinary1 #

Genitourinary2 #

1 = Checked
0 = Not Checked

Describe:

Value not provided

Musculoskeletal

- ☐ Normal
☒ Abnormal

Musculoskeletal \$1

N = Normal
A = Abnormal

Describe:

Value not provided

C-Spine Annotated PUD eCRF

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

C-Spine Annotated PUD eCRF

medicalhistory (5 of 5)

Hematologic / Lymphatic/ Rheumatologic/ Immunologic

☐ Normal

☒ Abnormal

☐ Juvenile Rheumatoid Arthritis

☐ Juvenile Ankylosing Spondylitis

☒ Other(Please provide a description below)

Describe:

Value not provided

N = Normal
A = Abnormal

HematologicLymphatic \$1

HematologicLymphatic1 #

HematologicLymphatic2 #

HematologicLymphatic3 #

1 = Checked
0 = Not Checked

Was the patient taking any medications prior to the injury?

☒ Yes, if so please list all medications

☐ No

Describe:

Value not provided

Medications \$1

Y = Yes
N = No

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

C-Spine Annotated PUD eCRF

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

- ☒ 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.

OutsideED \$4

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

C-Spine Annotated PUD eCRF

radiologyoutside (3 of 4)

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 dictated 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

C-Spine Annotated PUD eCRF

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

☐ 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

C-Spine Annotated PUD eCRF

radiologysite (2 of 3)

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 dictated 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

C-Spine Annotated PUD eCRF

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
- ☐ Needs further discussion

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

Value not provided

Value not provided

C-Spine Annotated PUD eCRF

radiologyreview (2 of 2)

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

C-Spine Annotated PUD eCRF

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 availableTotal 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☐ Pain☐ None

GCSEye \$4

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

Verbal

☐ Oriented - coos/babbles☐ Confused - irritable/cries☐ Inappropriate words - cries to pain☐ Incomprehensible sounds - moans☐ None

VerbalGCS \$4

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☐ Abnormal extension posturing☐ None

MotorGCS \$4

6 = Follow Commands
5 = Localizes pain [withdraws to touch]
4 = Withdraws to pain
3 = Abnormal flexure posturing
2 = Abnormal extension posturing
1 = NoneCalculated Total GCS:

TotalGCS \$4

C-Spine Annotated PUD eCRF

kappa (3 of 16)

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

☐ No

AVPU \$1

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 described as unresponsive to pain.

☐ Term used that cannot be mapped to AVPU

☐ Comatose

☐ Obtunded

☐ Unconscious

☐ Other

AVPUMental \$3

AVPUDetails \$1

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

AVPUMentaltxt \$78

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.

C-Spine Annotated PUD eCRF

kappa (4 of 16)

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

Did the patient complain of pain?

- ☐ 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

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
 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

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

C-Spine Annotated PUD eCRF

kappa (5 of 16)

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
- ☐ 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 \$51

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

PtTenderChest #

PtTenderBack #

PtTenderFlank #

PtTenderAbd #

PtTenderPelvis #

PtTenderExt #

1 = Checked
0 = Not Checked

C-Spine Annotated PUD eCRF

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.

C-Spine Annotated PUD eCRF

kappa (7 of 16)

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

C-Spine Annotated PUD eCRF

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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 #

1 = Checked
 0 = Not Checked

IntervForCervicalStabIntFixtxt \$122

IntervForCervicalStabOther #

IntervForCervicalStabOthertxt \$58

C-Spine Annotated PUD eCRF

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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

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

Please classify mobility

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

Please indicate bowel function

- ☐ Normal
- ☐ Incontinence of stool

Please classify bladder function

- ☐ Normal
- ☐ Incontinence of urine
- ☐ Chronic Catheterization

OutcomeStudySite \$3

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

OutcomeStudySiteMobility \$2

OutcomeStudySiteMobility1 #

OutcomeStudySiteMobility2 #

1 = Checked
0 = Not Checked

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

OutcomeStudySiteBowel \$1

N = Normal
I = Incontinence of stool

OutcomeStudySiteUrine \$1

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

C-Spine Annotated PUD eCRF

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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

- ☐ 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?

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

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

Was there history of loss of consciousness (LOC)?

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

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

PtAmbulatoryPriorEMSArrival \$2

Y = Yes
N = No
PA = Pre-ambulatory/Non-ambulatory
ND = 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

HxLOCField \$2

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

C-Spine Annotated PUD eCRF

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CLINICAL PRESENTATION AT AN OUTSIDE HOSPITAL ED -- KAPPA FORM

ALL information in the outside ED section must come from 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
 - ☐ Patient presented directly to the study site
- On arrival to the outside ED was the patient ambulatory?

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

Was there history of loss of consciousness (LOC)?

- ☐ Yes
- ☐ No
- ☐ Suspected - but not sure
- ☐ Unknown
- ☐ Not Documented

EDDocumentation \$4

PtAmbulatoryPriorArrivalED \$2

HxLOCED \$2

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

C-Spine Annotated PUD eCRF

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

1. Occupant in Motor Vehicle Collision (MVC)

☐ Motor Vehicle Collision

Type of Collision - Check all that apply

- ☐ Rear end collision
- ☐ Head on collision
- ☐ Side Impact
- ☐ Rollover
- ☐ Ejected from automobile
- ☐ Death in the same collision

Speed of patients vehicle

- ☐ <= 25MPH - residential speed
- ☐ 26 - 54 MPH
- ☐ >= 55 MPH - highway speed
- ☐ Vehicle speed not documented

Was a passenger restraint system used?

- ☐ Yes - Child safety seat, booster seat, seatbelts or other
- ☐ No
- ☐ Not documented

InjuryPrimaryMechanism \$2

MVCREC #

MVCHOC #

MVCSI #

MVCRO #

MVCEFA #

MVCDSC #

1 = Checked
0 = Not Checked

MVCSpeed #

PassRestraint #

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

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

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

C-Spine Annotated PUD eCRF

kappa (13 of 16)

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
- ☐ >= 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 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
- ☐ 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

C-Spine Annotated PUD eCRF

kappa (14 of 16)

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

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

☐ No

☐ Not documented

clotheslining \$2

helmet \$2

Y = Yes
N = No
ND = 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

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

☐ No

☐ Not documented

clotheslining \$2

helmet \$2

Y = Yes
N = No
ND = 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

☐ No

☐ Not documented

Was the child wearing a protective helmet?

☐ Yes

☐ No

☐ Not documented

clotheslining \$2

helmet \$2

Y = Yes
N = No
ND = Not documented

C-Spine Annotated PUD eCRF

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7. Pedestrian struck by moving vehicle <input type="radio"/> Pedestrian struck by moving vehicle	Refer to InjuryPrimaryMechanism annotation on page 97
8. Blunt injury to the head/neck <input type="radio"/> Blunt injury to the head/neck	Refer to InjuryPrimaryMechanism annotation on page 97
<input type="checkbox"/> Assault <input type="checkbox"/> Suspected or confirmed child abuse <input type="checkbox"/> Shaken baby syndrome Was the injury a result of an object (rope / cable / stick or similar item) striking the neck? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not documented	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Assault #</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">ChildAbuse #</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">ShakenBabySyndrome #</div> <div style="border: 1px solid black; padding: 2px; text-align: center;"> 1 = Checked 0 = Not Checked </div>
<div style="border: 1px solid black; padding: 2px; display: inline-block;">clotheslining \$2</div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> Y = Yes N = No ND = Not documented </div>	
9. Sports Injury (describe) <input type="radio"/> Sports injury	Refer to InjuryPrimaryMechanism annotation on page 97
<div style="border: 1px solid black; padding: 2px; display: inline-block;">InjuryPrimaryMechanismtxt \$160</div> Was the injury a result of an object (rope / cable / stick or similar item) striking the neck? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not documented Was the child wearing a protective helmet? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Not documented	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">clotheslining \$2</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">helmet \$2</div> <div style="border: 1px solid black; padding: 2px; text-align: center;"> Y = Yes N = No ND = Not documented </div>
10. Fall from elevation (estimated height in feet) <input type="radio"/> Fall from elevation	Refer to InjuryPrimaryMechanism annotation on page 97
<input type="radio"/> < 3 ft <input type="radio"/> >= 3 ft to < 10 ft <input type="radio"/> >= 10ft <input type="radio"/> Not documented	<div style="border: 1px solid black; padding: 2px; display: inline-block;">FallFromElevation #</div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> 1 = "< 3 ft" 2 = ">= 3 ft to < 10 ft" 3 = ">= 10ft" Missing = Not documented </div>

C-Spine Annotated PUD eCRF

kappa (16 of 16)

11. Fall down stairs (estimated # of stairs)

☐ Fall down stairs

[Refer to InjuryPrimaryMechanism annotation on page 97](#)

- ☐ 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 97](#)

13. Diving Injury

☐ Diving injury

[Refer to InjuryPrimaryMechanism annotation on page 97](#)

14. Hanging Injury

☐ Hanging injury

[Refer to InjuryPrimaryMechanism annotation on page 97](#)

15. Other (describe)

☐ Other

InjuryPrimaryMechanismtxt \$160

[Refer to InjuryPrimaryMechanism annotation on page 97](#)

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

16. Not Documented

☐ Not documented

[Refer to InjuryPrimaryMechanism annotation on page 97](#)