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Summary of Injury Occurrence
Average Number of Injuries per Year (1997-2001)
Includes Cause of Death Injuries and Potentially Occult Injuries

Average Number of Injuries per Year

1997-2001 CDS Weighted Data			
<i>Average per Year</i>	Head	Thorax	Abdomen & Pelvic Contents
Total Injuries	548,616	590,843	224,724
Potentially Occult Injuries	58,761	25,656	20,918
Cause of Death			
Total Injuries which were Cause of Death	15,642	10,782	2,694
Potentially Occult Injuries which were Cause of Death	10,376	6,001	2,511
Potentially Occult Injuries which were 1 of 3 Causes of Death	8,826	4,300	2,247
Potentially Occult Injuries which were 1 of 2 Causes of Death	1,108	1,043	176
Potentially Occult Injuries which were ONLY Cause of Death	441	658	87

Injury Occurrence

Average Number of Injuries per Year (1997-2001)

Includes Cause of Death Injuries and Potentially Occult Injuries

Definitions: Injury codes and definitions are based on the NASS Injury Coding Manual (1993 and 2000 editions). The data represent the average number of injuries per year derived from five years of NASS CDS weighted data (1997-2001) and are rounded to the nearest whole number of injuries. Injuries highlighted in yellow have been defined as potentially occult. For the purposes of this study, occult injuries are defined as those injuries or disabilities:

- For which patient signs and symptoms may not be evident in the prehospital/ED setting
- Which pose a significant threat to life (AIS \geq 3)
- Which may be suspected when crash scene information is utilized

Head

Whole Area

Code	Injury Description	All Injuries	Cause of Death Injuries
115099.7	Closed head injury/blunt head trauma/traumatic brain injury NFS	4,151	133
115999.7	died without further evaluation; no autopsy	380	155
113000.6	(Crush) Massive destruction of both cranium (skull) and brain	548	525
190099.1	Scalp NFS	1,149	0
190202.1	abrasion	59,716	0
190402.1	contusion/subgaleal hematoma	157,078	0
190600.1	laceration NFS	10,701	0
190602.1	minor (superficial)	90,405	0
190604.2	major (> 10cm long <u>and</u> into subcutaneous tissue)	1,968	0
190606.3	blood loss > 20% by volume	3	0
190800.1	avulsion NFS	339	0
190802.1	superficial (minor; $\leq 100\text{cm}^2$)	1,881	0
190804.2	major (> 100cm^2 but blood loss < 20% by volume)	220	2
190806.3	blood loss > 20% by volume	60	4
190808.3	total scalp loss	0	0
115299.7	Traumatic Brain Injury NFS	105	0

Vessels

Code	Injury Description	All Injuries	Cause of Death Injuries
120299.3	Anterior cerebral artery NFS	0	0
120202.5	laceration	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
120204.3	thrombosis (occlusion)	0	0
120206.3	traumatic aneurysm	0	0
120499.5	Basilar artery NFS	11	0
120402.5	laceration	63	52
120404.5	thrombosis (occlusion)	0	0
120406.5	traumatic aneurysm	0	0
120602.4	Carotid-cavernous fistula	8	0
120899.3	Cavernous sinus NFS	0	0
120802.4	laceration	0	0
120804.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0
120806.3	thrombosis (occlusion)	0	0
121099.3	Internal carotid artery NFS	0	0
121002.5	laceration	10	2
121004.4	thrombosis (occlusion)	125	0
121006.3	traumatic aneurysm	0	0
121299.3	Intracranial vessel NFS [Use this description if specific vessel is not known.]	5	0
121202.4	laceration	62	0
121204.3	thrombosis (occlusion)	0	0
121206.3	traumatic aneurysm	0	0
121499.3	Middle cerebral artery NFS	0	0
121402.5	laceration	10	0
121404.4	thrombosis (occlusion)	0	0
121406.3	traumatic aneurysm	11	0
121699.3	Other artery NFS (branch of anterior, posterior, or middle cerebral artery or branches of basilar or vertebral artery)	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
121602.4	laceration	63	0
121604.3	thrombosis (occlusion)	0	0
121606.3	traumatic aneurysm	0	0
121899.3	Posterior cerebral artery NFS	0	0
121802.5	laceration	18	2
121804.3	thrombosis (occlusion)	0	0
121806.3	traumatic aneurysm	0	0
122099.4	Sigmoid sinus NFS	0	0
122002.4	laceration	0	0
122004.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0
122006.4	thrombosis (occlusion)	0	0
122299.3	Sinus NFS or major vein NFS	0	0
122202.4	laceration	0	0
122204.3	thrombosis (occlusion)	0	0
122499.4	Superior longitudinal (sagittal) sinus NFS	0	0
122402.4	laceration	0	0
122404.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0
122406.4	thrombosis (occlusion)	0	0
122699.4	Transverse sinus NFS	0	0
122602.4	laceration	0	0
122604.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0
122606.4	thrombosis (occlusion)	0	0
122899.3	Vertebral artery NFS	10	0
122802.5	laceration	18	6

Code	Injury Description	All Injuries	Cause of Death Injuries
122804.3	thrombosis (occlusion)	17	17
122806.3	traumatic aneurysm	0	0

Nerves

Code	Injury Description	All Injuries	Cause of Death Injuries
130299.2	Cranial nerve NFS [Use this description if specific nerve is not known.]	5	0
130202.2	contusion	0	0
130204.2	laceration	1	0
130499.2	I (Olfactory nerve, tract) NFS	0	0
130402.2	contusion	0	0
130404.2	laceration	0	0
130699.2	II (Optic nerve--intracranial and intracanalicular segments) NFS	17	0
130602.2	contusion	24	0
130604.2	bilateral	0	0
130606.2	laceration	4	0
130608.2	bilateral	0	0
130899.2	III (Oculomotor nerve) NFS	10	0
130802.2	contusion or compression (includes injury due to transtentorial herniation)	0	0
130804.2	laceration	12	0
131099.2	IV (Trochlear nerve) NFS	489	0
131002.2	contusion	12	0
131004.2	laceration	0	0
131299.2	V (Trigeminal nerve) NFS	90	0

Code	Injury Description	All Injuries	Cause of Death Injuries
131202.2	contusion	0	0
131204.2	laceration	13	0
131499.2	VI (Abducens nerve) NFS	167	0
131402.2	contusion	23	0
131404.2	laceration	0	0
131699.2	VII (Facial nerve) NFS	181	0
131602.2	contusion	31	0
131604.2	laceration	49	0
131899.2	VIII (Acoustic Nerve, including auditory and vestibular nerves) NFS	0	0
131802.2	contusion	0	0
131804.2	laceration	0	0
131806.2	bilateral	0	0
132099.2	IX (Glossopharyngeal nerve) NFS	8	0
132002.2	contusion	0	0
132004.2	laceration	0	0
132299.2	X (Vagus nerve, excluding injury in neck or abdomen) NFS	0	0
132202.2	contusion	0	0
132204.2	laceration	0	0
132499.2	XI (Spinal accessory nerve) NFS	0	0
132402.2	contusion	0	0
132404.2	laceration	0	0
132699.2	XII (Hypoglossal nerve) NFS	8	0
132602.2	contusion	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
132604.2	laceration	0	0

Internal Organs

Code	Injury Description	All Injuries	Cause of Death Injuries
140299.5	Brain stem (hypothalamus, medulla, midbrain, pons) NFS	51	47
140202.5	compression (includes transtentorial (uncal) or cerebellar tonsillar herniation)	648	555
140204.5	contusion	625	292
140206.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	306	147
140208.5	infarction	16	10
140210.5	injury involving hemorrhage	1,107	748
140212.6	laceration	1,043	1,007
140214.6	massive destruction (crush)	7	7
140216.6	penetrating injury	1	1
140218.6	transection	103	103
140499.3	Cerebellum NFS [Use this section only if cerebellum, infratentorial or posterior fossa are named. Otherwise, code as Cerebrum.]	4	4
140402.3	contusion, single or multiple, NFS [include surrounding edema for size]	95	4
140403.3	small (superficial); ($\leq 15\text{cc}$; $\leq 3\text{cm}$ diameter)	103	2
140404.4	large (15-30cc; $> 3\text{cm}$ diameter)	11	0
140405.5	extensive (massive; total volume $> 30\text{cc}$)	17	17
140406.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	75	20
140410.4	hematoma/hemorrhage NFS [Use this code for "extra axial" unless further described as epidural or subdural, includes surrounding edema]	845	48
140414.4	epidural or extradural NFS [include surrounding edema for size]	8	8

Code	Injury Description	All Injuries	Cause of Death Injuries
140418.4	small (\leq 30cc in adults; \leq 2cm thick; smear; tiny; moderate)	0	0
140422.5	large ($>$ 30cc in adults; $>$ 2cm thick; massive; extensive)	0	0
140426.4	intracerebellar including petechial and subcortical NFS [include surrounding edema for size]	50	0
140430.4	small (\leq 15cc; \leq 3cm diameter)	53	0
140434.5	large ($>$ 15cc; $>$ 3cm diameter)	0	0
140438.4	subdural NFS	49	30
140442.4	small (\leq 30cc in adults; \leq 2cm thick; smear; tiny; moderate)	48	36
140446.5	large ($>$ 30cc in adults; $>$ 2cm thick; massive; extensive)	10	10
140450.3	brain swelling/edema not including surrounding edema NFS [Code one or other, i.e., swelling or edema, but not both. DO NOT code if result of anoxia or other nontraumatic cause.]	7	0
140454.3	edema	173	10
140458.3	infarction (acute due to traumatic vascular occlusion)	73	17
140462.3	ischemia	0	0
140466.3	subarachnoid hemorrhage	1,261	117
140470.3	subpial hemorrhage	0	0
140474.4	laceration	169	101
140478.5	penetrating injury	0	0
140699.3	Cerebrum NFS [Use if described as "brain" injury]	360	84
140602.3	contusion NFS [include surrounding edema for size]	938	156
140604.3	single NFS	378	8
140606.3	small (superficial; \leq 30cc; \leq 4cm diameter; midline shift \leq 5mm)	2,543	6
140608.4	large (deep; 30-50cc; $>$ 4cm diameter; midline shift $>$ 5mm)	284	17
140610.5	extensive (massive; $>$ 50cc)	25	9
140611.3	multiple NFS	49	0

Code	Injury Description	All Injuries	Cause of Death Injuries
140612.3	multiple, on same side but NFS	625	300
140614.3	small (superficial; total volume ≤30cc; midline shift ≤ 5mm)	378	2
140616.4	large (total volume 30-50cc; midline shift > 5mm)	25	0
140618.5	extensive (massive; total volume > 50cc)	46	11
140620.3	multiple, at least one on each side but NFS	960	91
140622.3	small (superficial; total volume ≤ 30cc)	1,076	69
140624.4	large (total volume 30-50cc)	182	71
140626.5	extensive (massive; total volume > 50cc)	207	185
140628.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	1,576	299
140629.4	hematoma/hemorrhage NFS [Use this code for "extra axial" unless further described as epidural or subdural]	1,320	276
140630.4	epidural or extradural NFS [include surrounding hematoma for size]	601	100
140632.4	small (≤ 50cc adult; ≤ 25cc if ≤ 10 years old; ≤ 1cm thick; smear; tiny; moderate)	564	65
140634.5	bilateral	144	126
140636.5	large (> 50cc adult; > 25cc if ≤ 10 years old; > 1cm thick; massive; extensive)	99	25
140638.4	intracerebral NFS [include surrounding edema for size]	315	82
140640.4	small (≤ 30cc; ≤ 4cm diameter)	1,471	13
140642.4	petechial hemorrhage(s)	600	16
140644.4	subcortical hemorrhage	106	31
140646.5	bilateral	921	262
140648.5	large (> 30cc; >4cm diameter)	74	29
140650.4	subdural NFS	1,196	394
140652.4	small (≤ 50cc adult; ≤ 25cc if ≤ 10 years old; ≤ 1cm thick; smear; tiny; moderate)	4,478	710
140654.5	bilateral	1,340	632

Code	Injury Description	All Injuries	Cause of Death Injuries
140656.5	large (> 50cc adult; > 25cc if ≤ 10 years old; > 1cm thick; massive; extensive)	668	371
140660.3	brain swelling/edema NFS (not including surrounding edema) [Code one or other, i.e., swelling or edema, but not both. DO NOT code if result of anoxia or other nontraumatic cause.]	710	124
140662.3	mild (compressed ventricle(s) w/o compressed brain stem cisterns)	738	66
140664.4	moderate (compressed ventricle(s) and brain stem cisterns)	248	93
140666.5	severe (absent/obliterated ventricle(s) or brain stem cisterns)	424	257
140668.3	edema NFS	947	63
140670.3	mild (compressed ventricle(s) w/o compressed brain stem cisterns)	917	54
140672.4	moderate (compressed ventricle(s) and brain stem cisterns)	403	117
140674.5	severe (absent/obliterated ventricle(s) or brain stem cisterns)	236	163
140676.3	infarction (acute due to traumatic vascular occlusion)	86	34
140678.4	intraventricular hemorrhage/intracerebral hematoma in ventricular system	3,973	610
140680.3	ischemia (directly related to trauma)	20	10
140682.3	pneumocephalus (directly related to trauma)	1,204	6
140684.3	subarachnoid hemorrhage	12,967	984
140686.3	subpial hemorrhage	0	0
140688.4	laceration	1,615	802
140690.5	penetrating injury	33	21
140799.3	Pituitary injury	75	0

Skeletal

Code	Injury Description	All Injuries	Cause of Death Injuries
150200.3	Base (basilar) fracture NFS (may involve ethmoid, orbital roof, sphenoid, temporal-including petrous, squamous or mastoid portions - or occipital bones)	3,415	337

Code	Injury Description	All Injuries	Cause of Death Injuries
150202.3	without CSF leak	2,006	266
150204.3	with CSF leak	356	0
150206.4	complex (open with torn, exposed or loss of brain tissue; comminuted; ring; hinge)	2,115	1,234
150000.2	Skull Fracture NFS	360	18
150400.2	Vault fracture NFS (may involve frontal, occipital, parietal, or temporal bones not otherwise specified) [Use this code if unknown if base or vault is fractured.]	2,083	131
150402.2	closed (simple; undisplaced; diastatic; linear)	4,107	133
150404.3	comminuted (compound, open but dura intact; depressed ≤ 2cm; displaced)	2,570	281
150406.4	complex (open with torn, exposed or loss of brain tissue)	865	490
150408.4	massively depressed (large areas of skull depressed > 2cm)	161	90

Length of Unconsciousness

Code	Injury Description	All Injuries	Cause of Death Injuries
<i>Unconsciousness known to be:</i>			
160202.2	< 1 hr.	2,591	0
160204.3	with neurological deficit	31	0
160206.3	1-6 hrs.	0	0
160208.4	with neurological deficit	0	0
160210.4	6-24 hrs. (includes 1 calendar day when hours cannot be estimated)	0	0
160212.5	with neurological deficit	11	0
160214.5	> 24 hrs.	106	0

Level of Consciousness

Code	Injury Description	All Injuries	Cause of Death Injuries
160499.1	Awake post resuscitation on admission or on Initial Observation at Scene (GCS 15) NFS [unknown if loss of consciousness]	8,513	0
160402.1	no prior unconsciousness, but may have dizziness (vertigo), blurred vision or vomiting (emesis) known to be a result of a head injury	39,112	0
160404.2	with neurological deficit	240	0
160406.2	prior unconsciousness, but length of time NFS	20,765	0
160408.3	with neurological deficit	198	0
160410.2	amnesia (no recollection of injury)	20,249	0
160412.3	with neurological deficit	140	0
160414.2	unconsciousness known to be < 1 hr.	26,712	0
160416.3	with neurological deficit	208	0
160699.2	Lethargic, Stuporous, Obtunded post resuscitation on admission or on Initial Observation at Scene (Can be Aroused by Verbal Stimuli; GCS 9-14) NFS [unknown if loss of consciousness]	3,176	0
160602.2	no prior unconsciousness	6,379	0
160604.3	with neurological deficit	204	0
160606.2	prior unconsciousness, but length of time NFS	3,318	0
160608.3	with neurological deficit	105	0
160610.2	unconsciousness known to be < 1 hr.	2,695	0
160612.3	with neurological deficit	384	0
160614.3	1-6 hrs. unconsciousness	0	0
160616.4	with neurological deficit	0	0
160899.3	Unconscious post resuscitation on admission or on Initial Observation at Scene (Unresponsive to Verbal or Painful Stimuli; GCS \leq 8) NFS	473	44
160802.3	length of unconsciousness NFS	1,144	15
160804.4	with neurological deficit	541	22

Code	Injury Description	All Injuries	Cause of Death Injuries
<i>Unconsciousness known to be:</i>			
160806.3	< 1 hr.	1,582	0
160808.4	with neurological deficit	234	0
160810.3	1-6 hrs.	26	0
160812.4	with neurological deficit	92	4
160814.4	6-24 hrs. (includes 1 calendar day when hours cannot be estimated)	14	2
160816.5	with neurological deficit	16	0
160818.5	> 24 hrs.	13	2
160820.4	appropriate movements, but only upon painful stimuli no matter the length of unconsciousness	1,282	8
160822.5	with neurological deficit	410	0
160824.5	inappropriate movements (decerebrate, decorticate, flaccid, no response to pain) no matter the length of unconsciousness	2,665	487
161000.2	Cerebral Concussion [Use <u>only</u> in those cases where there is convincing evidence of head injury and where the medical diagnosis is made by a physician and is given simply as "concussion" with no other description or clarification.]	1,573	0
Total		548,616	15,642
Total Occult		58,761	10,376

Thorax

Whole Area

Code	Injury Description	All Injuries	Cause of Death Injuries
415099.7	Blunt/Traumatic chest (thoracic) injury NFS	3,225	27
415999.7	died without further evaluation; no autopsy	102	72
411000.2	Breast avulsion, female	0	0
413000.6	(Crush) bilateral destruction/obliteration by external forces of a substantial portion of the chest cavity including skeletal, vascular, internal organs, and tissue systems.	115	113
490099.1	Skin/Subcutaneous tissue/Muscle/Chest wall NFS	483	0
490202.1	abrasion	60,942	0
490402.1	contusion (hematoma) <i>(OIS Grade I)</i>	372,267	0
490600.1	laceration NFS	591	0
490602.1	minor (superficial) <i>(OIS Grade I, II)</i>	4,950	0
490604.2	major (> 20cm long <u>and</u> into subcutaneous tissue)	6	0
490606.3	blood loss > 20% by volume	7	0
490800.1	avulsion NFS	5	0
490802.1	superficial (minor $\leq 100\text{cm}^2$)	23	0
490804.2	major (> 100cm^2 but blood loss $\leq 20\%$ by volume)	9	0
490806.3	blood loss > 20% by volume	0	0
492002.1	1st degree burn, > 1 yr. old	385	0
492006.1	2nd degree burn, < 10%	79	0
492012.2	2nd or 3rd degree burn, 10-19%	2	0

Vessels

Code	Injury Description	All Injuries	Cause of Death Injuries
420299.4	Aorta, thoracic NFS	91	49
420202.4	intimal tear, no disruption	231	111
420204.5	with aortic valve involvement	0	0
420206.4	laceration (perforation, puncture) NFS	455	302
420208.4	minor	583	311
420210.5	major	779	590
420212.5	with aortic root or valve involvement	23	6
420214.5	with paraplegia	0	0
420216.5	with hemorrhage confined to mediastinum	434	339
420218.6	with hemorrhage not confined to mediastinum (<i>OIS Grade VI</i>)	729	691
420499.3	Brachiocephalic (innominate) artery NFS (<i>all OIS Grade III</i>)	6	0
420402.3	intimal tear, no disruption	0	0
420404.3	laceration (perforation, puncture) NFS	12	0
420406.3	minor	0	0
420408.4	major	2	0
420699.3	Brachiocephalic (innominate) vein NFS (<i>all OIS Grade II</i>)	0	0
420602.3	laceration (perforation, puncture) NFS	4	0
420604.3	minor	0	0
420606.4	major	0	0
420608.5	with air embolus right side	0	0
420800.5	Coronary artery laceration or thrombosis (left main, right main, or left anterior descending artery, coronary sinus)	37	18
421099.3	Pulmonary artery NFS (<i>all OIS Grades IV and V</i>)	0	0
421002.3	intimal tear, no disruption	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
421004.3	laceration (perforation, puncture) NFS	62	9
421006.3	minor	34	18
421008.4	major	48	4
421299.3	Pulmonary vein NFS <i>(all OIS Grades IV and V)</i>	0	0
421202.3	laceration (perforation, puncture) NFS	13	4
421204.3	minor	6	0
421206.4	major	35	5
421499.3	Subclavian artery NFS <i>(all OIS Grade III)</i>	29	0
421402.3	intimal tear, no disruption	0	0
421404.3	laceration (perforation, puncture) NFS	0	0
421406.3	minor	0	0
421408.4	major	22	0
421699.3	Subclavian vein NFS <i>(all OIS Grade II)</i>	0	0
421602.3	laceration (perforation, puncture) NFS	4	0
421604.3	minor	0	0
421606.4	major	2	0
421899.3	Vena Cava, superior and thoracic portion of inferior NFS <i>(all OIS Grades IV and V)</i>	38	0
421802.3	laceration (perforation, puncture) NFS	100	15
421804.3	minor with or without thrombosis	65	3
421806.4	major	115	67
421808.5	with air embolus right side	127	127
422099.2	Other named arteries NFS (e.g., bronchial, esophageal, intercostal, internal mammary) <i>(all OIS Grade I)</i>	17	0
422002.2	intimal tear, no disruption	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
422004.2	laceration (perforation, puncture) NFS	7	0
422006.2	minor	58	0
422008.3	major	4	0
422299.2	Other named veins NFS (e.g., azygos, bronchial, cardiac, intercostal, hemiazygos, internal mammary, internal jugular) (all OIS Grades I except azygos, Grade II)	0	0
422202.2	laceration (perforation, puncture) NFS	18	0
422204.2	minor	20	0
422206.3	major	0	0

Internal Organs

Code	Injury Description	All Injuries	Cause of Death Injuries
440299.1	Bronchus distal to main stem NFS	0	0
440202.1	contusion (hematoma)	10	0
440204.2	laceration (puncture) NFS	4	0
440206.2	no perforation (partial thickness)	11	0
440208.3	perforation (full thickness but not complete transection)	0	0
440210.4	complex (avulsion, rupture, transection)	22	0
440212.3	fracture NFS	0	0
440214.3	simple	0	0
440216.4	major (with separation)	0	0
440400.5	Chordae tendineae laceration (rupture)	0	0
440699.2	Diaphragm NFS	122	0
440602.2	contusion (<i>OIS Grade I</i>)	130	0
440604.3	laceration (<i>OIS Grades II through IV</i>)	1,953	275

Code	Injury Description	All Injuries	Cause of Death Injuries
440606.4	rupture with herniation	326	76
440899.2	Esophagus NFS	0	0
440802.2	contusion (hematoma) <i>(OIS Grade I)</i>	56	0
440804.3	laceration NFS	0	0
440806.3	no perforation (partial thickness; ≤ 50% circumference) <i>(OIS Grades I and II)</i>	18	0
440808.4	perforation (full thickness but not complete transection; > 50% circumference) <i>(OIS Grade III)</i>	30	16
440810.5	complex with tissue loss (avulsion, rupture, transection) <i>(OIS Grades IV and V)</i>	26	2
441099.1/3	Heart (Myocardium) NFS	78	1
441002.1/3	contusion (hematoma) NFS	953	168
441004.1/3	minor	964	68
441006.4	major [this diagnosis must be substantiated e.g., by surgery, autopsy, EF < 25% absent CAD]	157	103
441008.3	laceration NFS	290	130
441010.3	no perforation, no chamber involvement	93	37
441012.5	perforation (ventricular or atrial with or without tamponade)	636	552
441014.6	complex or ventricular rupture	143	120
441016.6	multiple lacerations; > 50% tissue loss of a chamber	665	652
441018.6	avulsion	0	0
441200.5	Intracardiac valve laceration (rupture)	3	0
441300.5	Intraventricular or inter-atrial septum laceration (rupture)	152	114
441499.3	Lung NFS	202	0
441402.3	contusion NFS with or without hemo-/pneumothorax [This diagnosis should be coded <u>only if</u> there is a history of chest trauma <u>and</u> a physician's diagnosis is documented by x-ray, CT, MRI, surgery or autopsy. Clinical pulmonary dysfunction is insufficient evidence of a codeable injury.]	2,304	22
441406.3	unilateral with or without hemo-/pneumothorax	12,695	158

Code	Injury Description	All Injuries	Cause of Death Injuries
441410.4	bilateral with or without hemo-/pneumothorax	6,789	863
441414.3	laceration NFS with or without hemo-/pneumothorax unless described as follows:	230	11
441416.3	with pneumomediastinum	13	0
441418.4	with hemomediastinum	10	4
441420.4	with blood loss > 20% by volume	22	9
441422.5	with tension pneumothorax	0	0
441424.5	with parenchymal laceration with massive air leak	14	14
441426.5	with systemic air embolus	0	0
441430.3	unilateral with or without hemo-/pneumothorax unless described as follows:	987	125
441432.3	with pneumomediastinum	58	8
441434.4	with hemomediastinum	198	75
441436.4	with blood loss > 20% by volume	28	12
441438.5	with tension pneumothorax	0	0
441440.5	with parenchymal laceration with massive air leak	19	19
441442.5	with systemic air embolus	0	0
441450.4	bilateral with or without hemo-/pneumothorax unless described as follows:	574	224
441452.4	with pneumomediastinum	8	8
441454.4	with hemomediastinum	99	91
441456.5	with blood loss > 20% by volume	53	53
441458.5	with tension pneumothorax	0	0
441460.5	with parenchymal laceration with massive air leak	21	18
441462.5	with systemic air embolus	0	0
441699.2	Pericardium NFS	49	0

Code	Injury Description	All Injuries	Cause of Death Injuries
441602.2	laceration (puncture)	1,249	10
441604.3	injury with tamponade without heart injury	14	10
441606.5	herniation of the heart	129	123
441800.2	Pleura (visceral, parietal, and mediastinal) laceration	304	0
441802.3	with hemo-/pneumothorax	105	5
441804.2	contusion	163	0
442299.7	Thoracic cavity injury NFS [Use this section <u>only</u> when there is no information on specific anatomical lesion.]	0	0
442202.3	with hemo-/pneumothorax	6,824	449
442204.3	with pneumomediastinum	44	0
442206.4	with hemomediastinum	14	0
442208.4	with blood loss > 20% by volume	3	0
442210.5	with tension pneumothorax	302	41
442212.5	with systemic air embolus	0	0
442214.1	Thoracic cavity chest wall strain	7,124	0
442402.2	Thoracic duct laceration	18	0
442699.3	Trachea and main stem bronchus NFS	13	0
442602.3	contusion (hematoma)	10	0
442604.3	laceration NFS	21	0
442606.3	no perforation (partial thickness)	0	0
442608.4	perforation (full thickness but not complete transection)	87	3
442610.5	complex (avulsion, rupture, transection)	47	16
442612.4	fracture NFS	20	0
442614.4	simple	2	2

Code	Injury Description	All Injuries	Cause of Death Injuries
442616.5	major with laryngeal-tracheal separation	3	1

Skeletal

Code	Injury Description	All Injuries	Cause of Death Injuries
450299.1	Rib cage NFS	340	0
450202.1	contusion	11,516	0
450210.1	fracture NFS	2,371	27
450210.2	multiple rib fractures NFS [Use if no other information is available.]	3,423	45
450211.3	with hemo-/pneumothorax	1,148	118
450212.1	1 rib	17,163	0
450214.3	with hemo-/pneumothorax (<i>OIS Grade I</i>)	1,437	2
450220.2	2-3 ribs any location, or multiple fractures of single rib, with stable chest or NFS (<i>OIS Grade I, II or III</i>)	17,044	4
450222.3	with hemo-/pneumothorax	9,025	335
450230.3	> 3 ribs on one side and ≤ 3 ribs on the other side, stable chest or NFS	4,119	159
450232.4	with hemo-/pneumothorax	3,742	772
450240.4	> 3 ribs on each of two sides, with stable chest or NFS	963	353
450242.5	with hemo-/pneumothorax	567	348
450250.3	open/displaced/comminuted (any or combination; ≥1 rib)	1,217	127
450252.4	with hemo-/pneumothorax	1,048	74
450260.4	flail (unstable chest wall, paradoxical chest movement) unilateral or NFS (<i>OIS Grade III or IV</i>)	695	164
450262.3	without lung contusion (<i>OIS Grade III or IV</i>)	91	11
450264.4	with lung contusion (<i>OIS Grade III or IV</i>)	705	46
450266.5	bilateral flail with or without lung contusion (<i>OIS Grade V</i>)	1,107	606

Code	Injury Description	All Injuries	Cause of Death Injuries
450268.5	< 15 yrs. old	184	0
450899.1	Sternum NFS	74	0
450802.1	contusion	5,040	0
450804.2	fracture (<i>OIS Grade II or III</i>)	12,716	22
	Total	590,843	10,782
	Total Occult	25,656	6,001

Abdomen and Pelvic Contents

Whole Area

Code	Injury Description	All Injuries	Cause of Death Injuries
515099.7	Blunt/Traumatic abdominal injury NFS	5,331	93
515999.7	died without further evaluation; no autopsy	39	39
590099.1	Skin/Subcutaneous tissue/Muscle NFS	86	0
590202.1	abrasion	32,675	0
590402.1	contusion (hematoma)	130,105	0
590600.1	laceration NFS	647	0
590602.1	minor (superficial)	2,390	0
590604.2	major (> 20cm long and into subcutaneous tissue)	154	0
590606.3	blood loss > 20% by volume	5	0
590800.1	avulsion NFS	30	0
590802.1	superficial (minor; ≤ 100cm ²)	112	0
590804.2	major (> 100cm ² but blood loss ≤ 20% by volume)	12	0
590806.3	blood loss > 20% by volume	50	0
592000.1	Unspecified burn	22	0
592002.1	1st degree burn, > 1 yr. old	53	0

Vessels

Code	Injury Description	All Injuries	Cause of Death Injuries
520299.4	Aorta, abdominal NFS	10	0
520202.4	intimal tear, no disruption	6	0
520204.4	laceration (perforation, puncture) NFS	113	107

Code	Injury Description	All Injuries	Cause of Death Injuries
520206.4	minor	37	5
520208.5	major	429	50
520499.3	Celiac Artery NFS	0	0
520402.3	intimal tear, no disruption	0	0
520404.3	laceration (perforation, puncture) NFS	0	0
520406.4	minor	5	0
520408.5	major	3	0
520699.3	Iliac artery (common, internal, external) NFS	0	0
520602.3	intimal tear, no disruption	5	0
520604.3	laceration (perforation, puncture) NFS	3	3
520606.3	minor	2	2
520608.4	major	0	0
520899.3	Iliac vein (common) NFS	0	0
520802.3	laceration (perforation, puncture) NFS	0	0
520804.3	minor	0	0
520806.4	major	49	49
521099.2	Iliac vein (internal, external) NFS	0	0
521002.2	laceration (perforation, puncture) NFS	0	0
521004.2	minor	0	0
521006.3	major	0	0
521299.3	Vena cava, inferior NFS	0	0
521202.3	laceration (perforation, puncture) NFS	45	0
521204.3	minor with or without thrombosis	5	0

Code	Injury Description	All Injuries	Cause of Death Injuries
521206.4	major	60	58
521499.3	Other named arteries NFS (e.g., hepatic, renal, splenic, superior mesenteric)	6	0
521402.3	intimal tear, no disruption	52	4
521404.3	laceration (perforation, puncture) NFS	0	0
521406.3	minor	37	0
521408.4	major	206	18
521699.3	Other named veins NFS (e.g., portal, renal, splenic, superior mesenteric)	0	0
521602.3	laceration (perforation, puncture) NFS	110	6
521604.3	minor with or without thrombosis	622	7
521606.4	major	60	20

Internal Organs

Code	Injury Description	All Injuries	Cause of Death Injuries
540299.1	Adrenal gland NFS	5	0
540210.1	contusion (hematoma) NFS	139	0
540212.1	minor (superficial)	654	0
540214.2	major (large, deep)	7	0
540220.1	laceration NFS	81	0
540222.1	minor (superficial)	14	0
540224.2	major (multiple lacerations)	10	0
540226.3	complex (avulsion; massive; rupture; stellate; tissue loss; blood loss > 20% by volume)	33	0
540499.1	Anus NFS	0	0
540410.1	contusion (hematoma)	0	0

Code	Injury Description	All Injuries	Cause of Death Injuries
540420.2	laceration NFS	9	0
540422.2	no perforation (partial thickness)	9	0
540424.3	perforation (full thickness but not complete transection)	35	0
540426.4	massive (avulsion; complex; rupture; tissue loss)	0	0
540699.2	Bladder (urinary) NFS	99	0
540610.2	contusion (hematoma) <i>(OIS Grade I)</i>	677	0
540620.2	laceration NFS	229	0
540622.3	no perforation (partial thickness) <i>(OIS Grade I)</i>	10	0
540624.4	perforation (full thickness but not complete transection) <i>(OIS Grades II, III, IV)</i>	218	26
540626.4	massive (avulsion; complex; tissue loss) <i>(OIS Grades II, III, IV)</i>	0	0
540640.3	rupture NFS [Use this code only when a more detailed description is not available]	87	7
540899.2	Colon (large bowel) NFS	28	0
540810.2	contusion (hematoma) <i>(OIS Grade I)</i>	1,282	0
540820.2	laceration NFS	85	0
540822.2	no perforation (partial thickness; < 50% of circumference) <i>(OIS Grades I and II)</i>	264	0
540824.3	perforation (full thickness; ≥ 50 % of circumference without transection) <i>(OIS Grade III)</i>	181	1
540826.4	massive (avulsion; complex; rupture; tissue loss; gross fecal contamination, transection, devascularization) <i>(OIS Grades IV and V)</i>	252	187
541099.2	Duodenum NFS	8	0
541010.2	contusion (hematoma) <i>(OIS Grades I or II)</i>	339	1
541020.3	laceration NFS	0	0
541022.3	disruption < 50% of circumference; no perforation (partial thickness or serosal tear) <i>(OIS Grades I or II)</i>	23	0
541023.3	disruption 50-75% circumference of D2; disruption 50-100% circumference of D1, D3, D4 <i>(OIS Grade III)</i>	5	0
541024.4	disruption > 75% of circumference of D2; involving ampulla or distal common bile duct perforation (full thickness but not complete transection) <i>(OIS Grade IV)</i>	125	0

Code	Injury Description	All Injuries	Cause of Death Injuries
541028.5	massive (avulsion; complex; rupture; tissue loss; gross enteric contamination; devascularization; massive disruption of duodenopancreatic complex) (OIS Grade V)	29	0
541299.2	Gallbladder NFS	11	0
541210.2	contusion (hematoma) (OIS Grade I)	7	0
541220.2	laceration (perforation) NFS (OIS Grade II)	7	0
541222.2	minor (superficial; no cystic duct involvement)	4	0
541224.3	massive (avulsion; complex; rupture; tissue loss; cystic duct; laceration or transection) (OIS Grade III)	22	7
541226.4	with common bile or hepatic duct "laceration" or transection (OIS Grades IV and V)	5	0
541499.2	Jejunum-ileum (small bowel) NFS	26	11
541410.2	contusion (hematoma) (OIS Grade I)	1,132	0
541420.2	laceration NFS	79	0
541422.2	no perforation (partial thickness; < 50% of circumference) (OIS Grade I or II)	168	0
541424.3	perforation (full thickness; ≥ 50 % of circumference without transection) (OIS Grade III)	679	92
541426.4	massive (avulsion; complex; rupture; tissue loss; transection; devascularization) (OIS Grades IV or V)	292	9
541699.2	Kidney NFS	589	0
541610.2	contusion (hematoma) NFS	2,636	4
541612.2	minor (superficial; subcapsular, nonexpanding, confined to renal retroperitoneum or without parenchymal laceration) (OIS Grade I or II)	2,822	0
541614.3	major (large; subcapsular, > 50% surface area or expanding)	55	1
541620.2	laceration NFS	886	0
541622.2	minor (superficial; < 1cm parenchymal depth of renal cortex without urinary extravasation) (OIS Grade II)	899	0
541624.3	moderate (> 1cm parenchymal depth of renal cortex without collecting system rupture or urinary extravasation) (OIS Grade III)	235	0
541626.4	major (extending through renal cortex, medulla and collecting system; main renal vessel involvement with contained hemorrhage) (OIS Grade IV)	677	310
541628.5	hilum avulsion; total destruction of organ and its vascular system (OIS Grade V)	60	37

Code	Injury Description	All Injuries	Cause of Death Injuries
541640.4	rupture NFS [Use this code <u>only</u> when a more detailed injury description is not available.]	14	0
541899.2	Liver NFS	88	0
541810.2	contusion (hematoma) NFS	871	0
541812.2	minor (superficial; subcapsular, ≤ 50% surface area, nonexpanding; intraparenchymal ≤ 10cm in diameter) (OIS Grade I or II)	1,836	0
541814.3	major (ruptured subcapsular or parenchymal, > 50% surface area or expanding; intraparenchymal > 10cm or expanding; subcapsular; blood loss > 20% by volume) (OIS Grade III)	86	0
541820.2	laceration NFS	2,163	33
541822.2	minor (superficial; ≤ 3cm parenchymal depth, ≤ 10cm in length, simple capsular tears; blood loss ≤ 20% by volume) (OIS Grade I or II)	4,499	103
541824.3	moderate (> 3cm parenchymal depth, with major duct involvement; blood loss > 20% by volume) (OIS Grade III)	1,847	121
541826.4	major (parenchymal disruption of ≤ 75% of hepatic lobe or 1-3 Couinard's segments within a single lobe; multiple lacerations > 3cm deep; burst injury) (OIS Grade IV)	1,677	283
541828.5	complex (parenchymal disruption of > 75% of hepatic lobe or involving > 3 Couinard's segments within a single lobe or involving retrohepatic vena cava/central hepatic vein/hepatic artery/portal vein) pulpefication (OIS Grade V)	560	275
541830.6	hepatic avulsion (total separation of all vascular attachments) (OIS Grade VI)	131	122
541840.4	rupture NFS [Use this code <u>only</u> when a more detailed injury description is not available.]	18	2
542099.2	Mesentery NFS	37	0
542010.2	contusion (hematoma)	800	0
542020.2	laceration NFS	324	14
542022.2	minor (superficial)	877	0
542024.3	major (blood loss > 20% by volume)	109	5
542026.4	complex (avulsion; massive; rupture; stellate; tissue loss)	197	113
542299.2	Omentum NFS	4	0
542210.2	contusion (hematoma)	97	0
542220.2	laceration NFS	43	0

Code	Injury Description	All Injuries	Cause of Death Injuries
542222.2	minor (superficial)	11	0
542224.3	major (blood loss > 20% by volume)	0	0
542400.2	Ovarian (Fallopian) tube laceration	0	0
542699.1	Ovary NFS	0	0
542610.1	contusion (hematoma) <i>(OIS Grade I)</i>	13	0
542620.2	laceration (perforation) NFS	2	0
542622.2	minor (superficial, ≤ 0.5cm) <i>(OIS Grade II)</i>	3	0
542624.3	major (avulsion; complex; rupture; deep, >0.5cm, complete parenchymal destruction, partial disruption of blood supply) <i>(OIS Grade III, IV or V)</i>	0	0
542899.2	Pancreas NFS	0	0
542810.2	contusion (hematoma) NFS	245	0
542812.2	minor (superficial; no evidence of duct involvement) <i>(OIS Grade I)</i>	205	0
542814.3	major (large; extensive; duct involvement) <i>(OIS Grade I or II)</i>	7	0
542820.2	laceration NFS	53	0
542822.2	minor (superficial; no evidence of duct involvement) <i>(OIS Grade I)</i>	126	0
542824.3	moderate (with major vessel or major duct involvement) <i>(OIS Grade III)</i>	375	0
542826.4	if involving ampulla <i>(OIS Grade IV)</i>	0	0
542828.4	major (<i>multiple</i> lacerations)	5	0
542830.4	if involving ampulla <i>(OIS Grade IV)</i>	0	0
542832.5	complex (avulsion; massive; rupture; stellate; tissue loss; massive disruption of pancreatic head) <i>(OIS Grade V)</i>	191	11
543099.1	Penis NFS	0	0
543010.1	contusion (hematoma)	152	0
543020.1	laceration (perforation) NFS	6	0
543022.1	minor (superficial)	21	0

Code	Injury Description	All Injuries	Cause of Death Injuries
543024.2	major	27	0
543026.3	complex (amputation; avulsion; massive; rupture)	14	0
543299.1	Perineum NFS	15	0
543210.1	contusion (hematoma)	42	0
543220.1	laceration (perforation) NFS	21	0
543222.1	minor (superficial)	22	0
543224.2	major	72	0
543226.3	complex (avulsion; massive; rupture)	27	0
543400.3	Placenta abruption NFS	98	0
543402.4	blood loss > 20% by volume	0	0
543699.2	Rectum NFS	0	0
543610.2	contusion (hematoma) <i>(OIS Grade I)</i>	9	0
543620.2	laceration NFS	37	0
543622.2	no perforation (partial thickness; < 50% of circumference) <i>(OIS Grades I and II)</i>	16	0
543624.3	perforation (full thickness; ≥ 50% of circumference) <i>(OIS Grade III)</i>	9	0
543625.4	perforation (full thickness; extending into perineum) <i>(OIS Grade IV)</i>	25	0
543626.5	massive (avulsion; complex; rupture; tissue loss; devascularization; gross fecal contamination of pelvic space) <i>(OIS Grade V)</i>	0	0
543800.3	Retroperitoneum hemorrhage or hematoma	294	13
544099.1	Scrotum NFS	10	0
544010.1	contusion (hematoma)	186	0
544020.1	laceration (perforation) NFS	81	0
544022.1	minor (superficial)	203	0
544024.2	major (amputation; avulsion; complex)	22	0

Code	Injury Description	All Injuries	Cause of Death Injuries
544299.2	Spleen NFS	272	0
544210.2	contusion (hematoma) NFS	774	0
544212.2	minor (superficial; subcapsular ≤ 50% surface area; intraparenchymal, nonexpanding ≤ 5cm in diameter) (OIS Grade I or II)	1,452	0
544214.3	major (subcapsular > 50% surface area or expanding; ruptured subcapsular or parenchymal; intraparenchymal > 5cm in diameter or expanding) (OIS Grade III)	116	14
544220.2	laceration NFS (rupture)	1,489	11
544222.2	minor (superficial; simple capsular tear ≤ 3cm parenchymal depth; no major (i.e., trabecular) vessel involvement) (OIS Grade I or II)	5,705	0
544224.3	moderate (no hilar or segmental parenchymal disruption or destruction; > 3cm parenchymal depth or involving major (i.e., trabecular) vessels) (OIS Grade III)	928	27
544226.4	major (involving segmental or hilar vessels producing major devascularization of > 25% of spleen with no hilar injury) (OIS Grade IV)	1,761	219
544228.5	complex (with hilar disruption producing total devascularization; tissue loss; avulsion; stellate; pulpefication) (OIS Grade V)	1,267	134
544240.3	rupture ("fracture") NFS [Use this code <u>only</u> when a more detailed injury description is not available.]	1,213	37
544499.2	Stomach NFS	18	0
544410.2	contusion (hematoma) (OIS Grade I)	47	0
544420.2	laceration NFS	25	0
544422.2	no perforation (partial thickness) (OIS Grade I)	6	0
544424.3	perforation (full thickness) (OIS Grades II and III)	48	1
544426.4	massive (avulsion; complex; rupture; tissue loss; with major vessel involvement) (OIS Grades IV and V)	38	0
544699.1	Testes NFS	10	0
544610.1	contusion (hematoma)	101	0
544620.1	laceration NFS	6	0
544622.1	minor (superficial)	5	0
544624.2	major (amputation; avulsion; complex; rupture; massive)	33	0

Code	Injury Description	All Injuries	Cause of Death Injuries
544899.2	Ureter NFS	4	0
544810.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0
544820.2	laceration NFS	0	0
544822.2	no perforation (partial thickness) <i>(OIS Grade II)</i>	0	0
544824.3	perforation (full thickness) <i>(OIS Grade III)</i>	12	0
544826.3	massive (avulsion; complex; rupture; tissue loss; transection) <i>(OIS Grades IV and V)</i>	17	0
545099.2	Urethra NFS	40	0
545010.2	contusion (hematoma) <i>(OIS Grade I)</i>	3	0
545020.2	laceration NFS	4	0
545022.2	no perforation (partial thickness) <i>(OIS Grade III)</i>	0	0
545024.3	perforation (full thickness) <i>(OIS Grade IV)</i>	21	0
545026.3	massive (avulsion; complex; rupture; tissue loss) <i>(OIS Grade IV)</i>	11	0
545028.4	with posterior tissue loss <i>(OIS Grade V)</i>	0	0
545299.1	Uterus NFS	0	0
545210.2	contusion (hematoma) <i>(OIS Grade I)</i>	410	0
545220.2	laceration (perforation) NFS	0	0
545222.2	minor (superficial; ≤ 1cm) <i>(OIS Grade II)</i>	0	0
545226.3	if pregnancy in the 2nd trimester or 3rd trimester	5	0
545230.3	major (placental abruption ≤ 50%; > 1cm) <i>(OIS Grade III)</i>	0	0
545234.3	if pregnancy in 2nd trimester	0	0
545236.4	if pregnancy in 3rd trimester	0	0
545240.3	complex (avulsion; massive; rupture; involving uterine artery; placental abruption > 50%) <i>(OIS Grades IV and V)</i>	0	0
545242.4	if pregnancy in 2nd trimester	3	3

Code	Injury Description	All Injuries	Cause of Death Injuries
545246.5	if pregnancy in 3rd trimester	0	0
545499.1	Vagina NFS	0	0
545410.1	contusion (hematoma) <i>(OIS Grade I)</i>	0	0
545420.1	laceration (perforation) NFS	9	0
545422.1	minor (superficial) <i>(OIS Grade II)</i>	31	0
545424.2	major (deep) <i>(OIS Grade III)</i>	30	0
545426.3	complex (avulsion; massive; rupture) <i>(OIS Grades IV and V)</i>	0	0
545699.1	Vulva NFS	0	0
545610.1	contusion (hematoma) <i>(OIS Grade I)</i>	29	0
545620.1	laceration (perforation) NFS	5	0
545622.1	minor (superficial) <i>(OIS Grade II)</i>	18	0
545624.2	major (deep) <i>(OIS Grade III)</i>	30	0
545626.3	complex (avulsion; massive; rupture) <i>(OIS Grades IV and V)</i>	0	0
	Total	224,724	2,694
	Total Occult	20,918	2,511

Cause of Death Injuries
Average Number of Injuries per Year (1997-2001)
Includes Potentially Occult Injuries

Definitions: Injury codes and definitions are based on the NASS Injury Coding Manual (1993 and 2000 editions). The data represent the average number of injuries per year derived from five years of NASS CDS weighted data (1997-2001) and are rounded to the nearest whole number of injuries. Injuries highlighted in yellow have been defined as potentially occult. For the purposes of this study, occult injuries are defined as those injuries or disabilities:

- For which patient signs and symptoms may not be evident in the prehospital/ED setting
- Which pose a significant threat to life (AIS \geq 3)
- Which may be suspected when crash scene information is utilized

Head

Whole Area

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
115099.7	Closed head injury/blunt head trauma/traumatic brain injury NFS	133	25	18	91
115999.7	died without further evaluation; no autopsy	155	10	56	90
113000.6	(Crush) Massive destruction of both cranium (skull) and brain	525	178	48	299
190099.1	Scalp NFS	0	0	0	0
190202.1	abrasion	0	0	0	0
190402.1	contusion/subgaleal hematoma	0	0	0	0
190600.1	laceration NFS	0	0	0	0
190602.1	minor (superficial)	0	0	0	0
190604.2	major (> 10cm long <u>and</u> into subcutaneous tissue)	0	0	0	0
190606.3	blood loss > 20% by volume	0	0	0	0
190800.1	avulsion NFS	0	0	0	0
190802.1	superficial (minor; $\leq 100\text{cm}^2$)	0	0	0	0
190804.2	major (> 100cm^2 but blood loss < 20% by volume)	2	2	0	0
190806.3	blood loss > 20% by volume	4	4	0	0
190808.3	total scalp loss	0	0	0	0
115299.7	Traumatic Brain Injury NFS	0	0	0	0

Vessels

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
120299.3	Anterior cerebral artery NFS	0	0	0	0
120202.5	laceration	0	0	0	0
120204.3	thrombosis (occlusion)	0	0	0	0
120206.3	traumatic aneurysm	0	0	0	0
120499.5	Basilar artery NFS	0	0	0	0
120402.5	laceration	52	52	0	0
120404.5	thrombosis (occlusion)	0	0	0	0
120406.5	traumatic aneurysm	0	0	0	0
120602.4	Carotid-cavernous fistula	0	0	0	0
120899.3	Cavernous sinus NFS	0	0	0	0
120802.4	laceration	0	0	0	0
120804.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0	0	0
120806.3	thrombosis (occlusion)	0	0	0	0
121099.3	Internal carotid artery NFS	0	0	0	0
121002.5	laceration	2	2	0	0
121004.4	thrombosis (occlusion)	0	0	0	0
121006.3	traumatic aneurysm	0	0	0	0
121299.3	Intracranial vessel NFS [Use this description if specific vessel is not known.]	0	0	0	0
121202.4	laceration	0	0	0	0
121204.3	thrombosis (occlusion)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
121206.3	traumatic aneurysm	0	0	0	0
121499.3	Middle cerebral artery NFS	0	0	0	0
121402.5	laceration	0	0	0	0
121404.4	thrombosis (occlusion)	0	0	0	0
121406.3	traumatic aneurysm	0	0	0	0
121699.3	Other artery NFS (branch of anterior, posterior, or middle cerebral artery or branches of basilar or vertebral artery)	0	0	0	0
121602.4	laceration	0	0	0	0
121604.3	thrombosis (occlusion)	0	0	0	0
121606.3	traumatic aneurysm	0	0	0	0
121899.3	Posterior cerebral artery NFS	0	0	0	0
121802.5	laceration	2	2	0	0
121804.3	thrombosis (occlusion)	0	0	0	0
121806.3	traumatic aneurysm	0	0	0	0
122099.4	Sigmoid sinus NFS	0	0	0	0
122002.4	laceration	0	0	0	0
122004.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0	0	0
122006.4	thrombosis (occlusion)	0	0	0	0
122299.3	Sinus NFS or major vein NFS	0	0	0	0
122202.4	laceration	0	0	0	0
122204.3	thrombosis (occlusion)	0	0	0	0
122499.4	Superior longitudinal (sagittal) sinus NFS	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
122402.4	laceration	0	0	0	0
122404.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0	0	0
122406.4	thrombosis (occlusion)	0	0	0	0
122699.4	Transverse sinus NFS	0	0	0	0
122602.4	laceration	0	0	0	0
122604.5	open laceration or segmental loss ("open" means vessel is bleeding outside the body externally)	0	0	0	0
122606.4	thrombosis (occlusion)	0	0	0	0
122899.3	Vertebral artery NFS	0	0	0	0
122802.5	laceration	6	5	1	0
122804.3	thrombosis (occlusion)	17	17	0	0
122806.3	traumatic aneurysm	0	0	0	0

Nerves

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
130299.2	Cranial nerve NFS [Use this description if specific nerve is not known.]	0	0	0	0
130202.2	contusion	0	0	0	0
130204.2	laceration	0	0	0	0
130499.2	I (Olfactory nerve, tract) NFS	0	0	0	0
130402.2	contusion	0	0	0	0
130404.2	laceration	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
130699.2	II (Optic nerve--intracranial and intracanalicular segments) NFS	0	0	0	0
130602.2	contusion	0	0	0	0
130604.2	bilateral	0	0	0	0
130606.2	laceration	0	0	0	0
130608.2	bilateral	0	0	0	0
130899.2	III (Oculomotor nerve) NFS	0	0	0	0
130802.2	contusion or compression (includes injury due to transtentorial herniation)	0	0	0	0
130804.2	laceration	0	0	0	0
131099.2	IV (Trochlear nerve) NFS	0	0	0	0
131002.2	contusion	0	0	0	0
131004.2	laceration	0	0	0	0
131299.2	V (Trigeminal nerve) NFS	0	0	0	0
131202.2	contusion	0	0	0	0
131204.2	laceration	0	0	0	0
131499.2	VI (Abducens nerve) NFS	0	0	0	0
131402.2	contusion	0	0	0	0
131404.2	laceration	0	0	0	0
131699.2	VII (Facial nerve) NFS	0	0	0	0
131602.2	contusion	0	0	0	0
131604.2	laceration	0	0	0	0
131899.2	VIII (Acoustic Nerve, including auditory and vestibular nerves) NFS	0	0	0	0
131802.2	contusion	0	0	0	0
131804.2	laceration	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
131806.2	bilateral	0	0	0	0
132099.2	IX (Glossopharyngeal nerve) NFS	0	0	0	0
132002.2	contusion	0	0	0	0
132004.2	laceration	0	0	0	0
132299.2	X (Vagus nerve, excluding injury in neck or abdomen) NFS	0	0	0	0
132202.2	contusion	0	0	0	0
132204.2	laceration	0	0	0	0
132499.2	XI (Spinal accessory nerve) NFS	0	0	0	0
132402.2	contusion	0	0	0	0
132404.2	laceration	0	0	0	0
132699.2	XII (Hypoglossal nerve) NFS	0	0	0	0
132602.2	contusion	0	0	0	0
132604.2	laceration	0	0	0	0

Internal Organs

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140299.5	Brain stem (hypothalamus, medulla, midbrain, pons) NFS	47	41	6	0
140202.5	compression (includes transtentorial (uncal) or cerebellar tonsillar herniation)	555	364	173	17
140204.5	contusion	292	260	26	5

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140206.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	147	135	0	12
140208.5	infarction	10	10	0	0
140210.5	injury involving hemorrhage	748	613	112	23
140212.6	laceration	1,007	691	245	71
140214.6	massive destruction (crush)	7	7	0	0
140216.6	penetrating injury	1	1	0	0
140218.6	transection	103	87	9	7
140499.3	Cerebellum NFS [Use this section only if cerebellum, infratentorial or posterior fossa are named. Otherwise, code as Cerebrum.]	4	4	0	0
140402.3	contusion, single or multiple, NFS [include surrounding edema for size]	4	4	0	0
140403.3	small (superficial); ($\leq 15\text{cc}$; $\leq 3\text{cm}$ diameter)	2	2	0	0
140404.4	large (15-30cc; $> 3\text{cm}$ diameter)	0	0	0	0
140405.5	extensive (massive; total volume $> 30\text{cc}$)	17	17	0	0
140406.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	20	10	9	0
140410.4	hematoma/hemorrhage NFS [Use this code for "extra axial" unless further described as epidural or subdural, includes surrounding edema]	48	48	0	0
140414.4	epidural or extradural NFS [include surrounding edema for size]	8	8	0	0
140418.4	small ($\leq 30\text{cc}$ in adults; $\leq 2\text{cm}$ thick; smear; tiny; moderate)	0	0	0	0
140422.5	large ($> 30\text{cc}$ in adults; $> 2\text{cm}$ thick; massive; extensive)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140426.4	intracerebellar including petechial and subcortical NFS [include surrounding edema for size]	0	0	0	0
140430.4	small ($\leq 15\text{cc}$; $\leq 3\text{cm}$ diameter)	0	0	0	0
140434.5	large ($> 15\text{cc}$; $> 3\text{cm}$ diameter)	0	0	0	0
140438.4	subdural NFS	30	25	5	0
140442.4	small ($\leq 30\text{cc}$ in adults; $\leq 2\text{cm}$ thick; smear; tiny; moderate)	36	36	0	0
140446.5	large ($> 30\text{cc}$ in adults; $> 2\text{cm}$ thick; massive; extensive)	10	10	0	0
140450.3	brain swelling/edema not including surrounding edema NFS [Code one or other, i.e., swelling or edema, but not both. DO NOT code if result of anoxia or other nontraumatic cause.]	0	0	0	0
140454.3	edema	10	10	0	0
140458.3	infarction (acute due to traumatic vascular occlusion)	17	17	0	0
140462.3	ischemia	0	0	0	0
140466.3	subarachnoid hemorrhage	117	104	12	0
140470.3	subpial hemorrhage	0	0	0	0
140474.4	laceration	101	101	0	0
140478.5	penetrating injury	0	0	0	0
140699.3	Cerebrum NFS [Use if described as "brain" injury]	84	57	26	1
140602.3	contusion NFS [include surrounding edema for size]	156	130	26	0
140604.3	single NFS	8	8	0	0
140606.3	small (superficial; $\leq 30\text{cc}$; $\leq 4\text{cm}$ diameter; midline shift $\leq 5\text{mm}$)	6	6	0	0
140608.4	large (deep; 30-50cc; $> 4\text{cm}$ diameter; midline shift $> 5\text{mm}$)	17	8	9	0
140610.5	extensive (massive; $> 50\text{cc}$)	9	9	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140611.3	multiple NFS	0	0	0	0
140612.3	multiple, on same side but NFS	300	290	10	0
140614.3	small (superficial; total volume ≤30cc; midline shift ≤ 5mm)	2	2	0	0
140616.4	large (total volume 30-50cc; midline shift > 5mm)	0	0	0	0
140618.5	extensive (massive; total volume > 50cc)	11	11	0	0
140620.3	multiple, at least one on each side but NFS	91	61	30	0
140622.3	small (superficial; total volume ≤ 30cc)	69	56	13	0
140624.4	large (total volume 30-50cc)	71	71	0	0
140626.5	extensive (massive; total volume > 50cc)	185	185	0	0
140628.5	diffuse axonal injury (white matter shearing) [Use this code only if medical indicates "white matter shearing" or diagnosis is "diffuse axonal injury" (DAI).]	299	248	41	9
140629.4	hematoma/hemorrhage NFS [Use this code for "extra axial" unless further described as epidural or subdural]	276	107	42	127
140630.4	epidural or extradural NFS [include surrounding hematoma for size]	100	100	0	0
140632.4	small (≤ 50cc adult; ≤ 25cc if ≤ 10 years old; ≤ 1cm thick; smear; tiny; moderate)	65	65	0	0
140634.5	bilateral	126	126	0	0
140636.5	large (> 50cc adult; > 25cc if ≤ 10 years old; > 1cm thick; massive; extensive)	25	25	0	0
140638.4	intracerebral NFS [include surrounding edema for size]	82	67	5	10
140640.4	small (≤ 30cc; ≤ 4cm diameter)	13	13	0	0
140642.4	petechial hemorrhage(s)	16	12	4	0
140644.4	subcortical hemorrhage	31	31	0	0
140646.5	bilateral	262	217	23	22

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140648.5	large (> 30cc; >4cm diameter)	29	29	0	1
140650.4	subdural NFS	394	358	31	4
140652.4	small (\leq 50cc adult; \leq 25cc if \leq 10 years old; \leq 1cm thick; smear; tiny; moderate)	710	633	77	0
140654.5	bilateral	632	581	51	0
140656.5	large (> 50cc adult; > 25cc if \leq 10 years old; > 1cm thick; massive; extensive)	371	335	22	14
140660.3	brain swelling/edema NFS (not including surrounding edema) [Code one or other, i.e., swelling or edema, but not both. DO NOT code if result of anoxia or other nontraumatic cause.]	124	107	7	10
140662.3	mild (compressed ventricle(s) w/o compressed brain stem cisterns)	66	57	9	0
140664.4	moderate (compressed ventricle(s) and brain stem cisterns)	93	85	8	0
140666.5	severe (absent/obliterated ventricle(s) or brain stem cisterns)	257	238	19	0
140668.3	edema NFS	63	63	0	0
140670.3	mild (compressed ventricle(s) w/o compressed brain stem cisterns)	54	53	1	0
140672.4	moderate (compressed ventricle(s) and brain stem cisterns)	117	108	6	3
140674.5	severe (absent/obliterated ventricle(s) or brain stem cisterns)	163	163	0	0
140676.3	infarction (acute due to traumatic vascular occlusion)	34	34	0	0
140678.4	intraventricular hemorrhage/intracerebral hematoma in ventricular system	610	559	50	0
140680.3	ischemia (directly related to trauma)	10	10	0	0
140682.3	pneumocephalus (directly related to trauma)	6	6	0	0
140684.3	subarachnoid hemorrhage	984	917	67	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
140686.3	subpial hemorrhage	0	0	0	0
140688.4	laceration	802	691	111	0
140690.5	penetrating injury	21	18	0	3
140799.3	Pituitary injury	0	0	0	0

Skeletal

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
150200.3	Base (basilar) fracture NFS (may involve ethmoid, orbital roof, sphenoid, temporal-including petrous, squamous or mastoid portions - or occipital bones)	337	155	114	68
150202.3	without CSF leak	266	81	1	183
150204.3	with CSF leak	0	0	0	0
150206.4	complex (open with torn, exposed or loss of brain tissue; comminuted; ring; hinge)	1,234	1,022	164	48
150000.2	Skull Fracture NFS	18	0	0	18
150400.2	Vault fracture NFS (may involve frontal, occipital, parietal, or temporal bones not otherwise specified) [Use this code if unknown if base or vault is fractured.]	131	75	18	37
150402.2	closed (simple; undisplaced; diastatic; linear)	133	132	0	1
150404.3	comminuted (compound, open but dura intact; depressed ≤ 2cm; displaced)	281	232	23	26
150406.4	complex (open with torn, exposed or loss of brain tissue)	490	235	112	143
150408.4	massively depressed (large areas of skull depressed > 2cm)	90	81	9	0

Length of Unconsciousness

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
<i>Unconsciousness known to be:</i>					
160202.2	< 1 hr.	0	0	0	0
160204.3	with neurological deficit	0	0	0	0
160206.3	1-6 hrs.	0	0	0	0
160208.4	with neurological deficit	0	0	0	0
160210.4	6-24 hrs. (includes 1 calendar day when hours cannot be estimated)	0	0	0	0
160212.5	with neurological deficit	0	0	0	0
160214.5	> 24 hrs.	0	0	0	0

Level of Consciousness

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
160499.1	Awake post resuscitation on admission or on Initial Observation at Scene (GCS 15) NFS [unknown if loss of consciousness]	0	0	0	0
160402.1	no prior unconsciousness, but may have dizziness (vertigo), blurred vision or vomiting (emesis) known to be a result of a head injury	0	0	0	0
160404.2	with neurological deficit	0	0	0	0
160406.2	prior unconsciousness, but length of time NFS	0	0	0	0
160408.3	with neurological deficit	0	0	0	0
160410.2	amnesia (no recollection of injury)	0	0	0	0
160412.3	with neurological deficit	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
160414.2	unconsciousness known to be < 1 hr.	0	0	0	0
160416.3	with neurological deficit	0	0	0	0
160699.2	Lethargic, Stuporous, Obtunded post resuscitation on admission or on Initial Observation at Scene (Can be Aroused by Verbal Stimuli; GCS 9-14) NFS [unknown if loss of consciousness]	0	0	0	0
160602.2	no prior unconsciousness	0	0	0	0
160604.3	with neurological deficit	0	0	0	0
160606.2	prior unconsciousness, but length of time NFS	0	0	0	0
160608.3	with neurological deficit	0	0	0	0
160610.2	unconsciousness known to be < 1 hr.	0	0	0	0
160612.3	with neurological deficit	0	0	0	0
160614.3	1-6 hrs. unconsciousness	0	0	0	0
160616.4	with neurological deficit	0	0	0	0
160899.3	Unconscious post resuscitation on admission or on Initial Observation at Scene (Unresponsive to Verbal or Painful Stimuli; GCS \leq 8) NFS	44	0	0	44
160802.3	length of unconsciousness NFS	15	15	0	0
160804.4	with neurological deficit	22	0	10	12
<i>Unconsciousness known to be:</i>					
160806.3	< 1 hr.	0	0	0	0
160808.4	with neurological deficit	0	0	0	0
160810.3	1-6 hrs.	0	0	0	0
160812.4	with neurological deficit	4	4	0	0
160814.4	6-24 hrs. (includes 1 calendar day when hours cannot be estimated)	2	2	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
160816.5	with neurological deficit	0	0	0	0
160818.5	> 24 hrs.	2	2	0	0
160820.4	appropriate movements, but only upon painful stimuli no matter the length of unconsciousness	8	1	7	0
160822.5	with neurological deficit	0	0	0	0
160824.5	inappropriate movements (decerebrate, decorticate, flaccid, no response to pain) no matter the length of unconsciousness	487	439	12	37
161000.2	Cerebral Concussion [Use <u>only</u> in those cases where there is convincing evidence of head injury and where the medical diagnosis is made by a physician and is given simply as "concussion" with no other description or clarification.]	0	0	0	0
Total		15,642	12,326	1,880	1,436
Total Occult		10,376	8,826	1,108	441

Thorax

Whole Area

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
415099.7	Blunt/Traumatic chest (thoracic) injury NFS	27	0	6	20
415999.7	died without further evaluation; no autopsy	72	0	72	0
411000.2	Breast avulsion, female	0	0	0	0
413000.6	(Crush) bilateral destruction/obliteration by external forces of a substantial portion of the chest cavity including skeletal, vascular, internal organs, and tissue systems.	113	49	28	37
490099.1	Skin/Subcutaneous tissue/Muscle/Chest wall NFS	0	0	0	0
490202.1	abrasion	0	0	0	0
490402.1	contusion (hematoma) (<i>OIS Grade I</i>)	0	0	0	0
490600.1	laceration NFS	0	0	0	0
490602.1	minor (superficial) (<i>OIS Grade I, II</i>)	0	0	0	0
490604.2	major (> 20cm long <u>and</u> into subcutaneous tissue)	0	0	0	0
490606.3	blood loss > 20% by volume	0	0	0	0
490800.1	avulsion NFS	0	0	0	0
490802.1	superficial (minor $\leq 100\text{cm}^2$)	0	0	0	0
490804.2	major (> 100cm^2 but blood loss $\leq 20\%$ by volume)	0	0	0	0
490806.3	blood loss > 20% by volume	0	0	0	0
492002.1	1st degree burn, > 1 yr. old	0	0	0	0
492006.1	2nd degree burn, < 10%	0	0	0	0
492012.2	2nd or 3rd degree burn, 10-19%	0	0	0	0

Vessels

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
420299.4	Aorta, thoracic NFS	49	49	0	0
420202.4	intimal tear, no disruption	111	96	15	0
420204.5	with aortic valve involvement	0	0	0	0
420206.4	laceration (perforation, puncture) NFS	302	207	34	61
420208.4	minor	311	218	88	5
420210.5	major	590	399	94	97
420212.5	with aortic root or valve involvement	6	6	0	0
420214.5	with paraplegia	0	0	0	0
420216.5	with hemorrhage confined to mediastinum	339	281	28	30
420218.6	with hemorrhage not confined to mediastinum (OIS Grade VI)	691	516	80	95
420499.3	Brachiocephalic (innominate) artery NFS (all OIS Grade III)	0	0	0	0
420402.3	intimal tear, no disruption	0	0	0	0
420404.3	laceration (perforation, puncture) NFS	0	0	0	0
420406.3	minor	0	0	0	0
420408.4	major	0	0	0	0
420699.3	Brachiocephalic (innominate) vein NFS (all OIS Grade II)	0	0	0	0
420602.3	laceration (perforation, puncture) NFS	0	0	0	0
420604.3	minor	0	0	0	0
420606.4	major	0	0	0	0
420608.5	with air embolus right side	0	0	0	0
420800.5	Coronary artery laceration or thrombosis (left main, right main, or left anterior descending artery, coronary sinus)	18	18	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
421099.3	Pulmonary artery NFS (all OIS Grades IV and V)	0	0	0	0
421002.3	intimal tear, no disruption	0	0	0	0
421004.3	laceration (perforation, puncture) NFS	9	9	0	0
421006.3	minor	18	18	0	0
421008.4	major	4	0	4	0
421299.3	Pulmonary vein NFS (all OIS Grades IV and V)	0	0	0	0
421202.3	laceration (perforation, puncture) NFS	4	4	0	0
421204.3	minor	0	0	0	0
421206.4	major	5	5	0	0
421499.3	Subclavian artery NFS (all OIS Grade III)	0	0	0	0
421402.3	intimal tear, no disruption	0	0	0	0
421404.3	laceration (perforation, puncture) NFS	0	0	0	0
421406.3	minor	0	0	0	0
421408.4	major	0	0	0	0
421699.3	Subclavian vein NFS (all OIS Grade II)	0	0	0	0
421602.3	laceration (perforation, puncture) NFS	0	0	0	0
421604.3	minor	0	0	0	0
421606.4	major	0	0	0	0
421899.3	Vena Cava, superior and thoracic portion of inferior NFS (all OIS Grades IV and V)	0	0	0	0
421802.3	laceration (perforation, puncture) NFS	15	6	9	0
421804.3	minor with or without thrombosis	3	3	0	0
421806.4	major	67	48	19	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
421808.5	with air embolus right side	127	2	0	125
422099.2	Other named arteries NFS (e.g., bronchial, esophageal, intercostal, internal mammary) (<i>all OIS Grade I</i>)	0	0	0	0
422002.2	intimal tear, no disruption	0	0	0	0
422004.2	laceration (perforation, puncture) NFS	0	0	0	0
422006.2	minor	0	0	0	0
422008.3	major	0	0	0	0
422299.2	Other named veins NFS (e.g., azygos, bronchial, cardiac, intercostal, hemiazygos, internal mammary, internal jugular) (<i>all OIS Grades I except azygos, Grade II</i>)	0	0	0	0
422202.2	laceration (perforation, puncture) NFS	0	0	0	0
422204.2	minor	0	0	0	0
422206.3	major	0	0	0	0

Internal Organs

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
440299.1	Bronchus distal to main stem NFS	0	0	0	0
440202.1	contusion (hematoma)	0	0	0	0
440204.2	laceration (puncture) NFS	0	0	0	0
440206.2	no perforation (partial thickness)	0	0	0	0
440208.3	perforation (full thickness but not complete transection)	0	0	0	0
440210.4	complex (avulsion, rupture, transection)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
440212.3	fracture NFS	0	0	0	0
440214.3	simple	0	0	0	0
440216.4	major (with separation)	0	0	0	0
440400.5	Chordae tendineae laceration (rupture)	0	0	0	0
440699.2	Diaphragm NFS	0	0	0	0
440602.2	contusion (<i>OIS Grade I</i>)	0	0	0	0
440604.3	laceration (<i>OIS Grades II through IV</i>)	275	261	14	0
440606.4	rupture with herniation	76	76	0	0
440899.2	Esophagus NFS	0	0	0	0
440802.2	contusion (hematoma) (<i>OIS Grade I</i>)	0	0	0	0
440804.3	laceration NFS	0	0	0	0
440806.3	no perforation (partial thickness; ≤ 50% circumference) (<i>OIS Grades I and II</i>)	0	0	0	0
440808.4	perforation (full thickness but not complete transection; > 50% circumference) (<i>OIS Grade III</i>)	16	16	0	0
440810.5	complex with tissue loss (avulsion, rupture, transection) (<i>OIS Grades IV and V</i>)	2	2	0	0
441099.1/3	Heart (Myocardium) NFS	1	0	0	1
441002.1/3	contusion (hematoma) NFS	168	121	26	21
441004.1/3	minor	68	68	0	0
441006.4	major [this diagnosis must be substantiated e.g., by surgery, autopsy, EF < 25% absent CAD]	103	57	37	9
441008.3	laceration NFS	130	107	13	9
441010.3	no perforation, no chamber involvement	37	37	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
441012.5	perforation (ventricular or atrial with or without tamponade)	552	412	97	42
441014.6	complex or ventricular rupture	120	94	23	3
441016.6	multiple lacerations; > 50% tissue loss of a chamber	652	348	279	25
441018.6	avulsion	0	0	0	0
441200.5	Intracardiac valve laceration (rupture)	0	0	0	0
441300.5	Intraventricular or inter-atrial septum laceration (rupture)	114	78	36	0
441499.3	Lung NFS	0	0	0	0
441402.3	contusion NFS with or without hemo-/pneumothorax [This diagnosis should be coded <u>only</u> if there is a history of chest trauma <u>and</u> a physician's diagnosis is documented by x-ray, CT, MRI, surgery or autopsy. Clinical pulmonary dysfunction is insufficient evidence of a codeable injury.]	22	22	0	0
441406.3	unilateral with or without hemo-/pneumothorax	158	158	0	0
441410.4	bilateral with or without hemo-/pneumothorax	863	819	43	0
441414.3	laceration NFS with or without hemo-/pneumothorax unless described as follows:	11	11	0	0
441416.3	with pneumomediastinum	0	0	0	0
441418.4	with hemomediastinum	4	4	0	0
441420.4	with blood loss > 20% by volume	9	9	0	0
441422.5	with tension pneumothorax	0	0	0	0
441424.5	with parenchymal laceration with massive air leak	14	0	14	0
441426.5	with systemic air embolus	0	0	0	0
441430.3	unilateral with or without hemo-/pneumothorax unless described as follows:	125	103	22	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
441432.3	with pneumomediastinum	8	8	0	0
441434.4	with hemomediastinum	75	75	0	0
441436.4	with blood loss > 20% by volume	12	4	5	4
441438.5	with tension pneumothorax	0	0	0	0
441440.5	with parenchymal laceration with massive air leak	19	19	0	0
441442.5	with systemic air embolus	0	0	0	0
441450.4	bilateral with or without hemo-/pneumothorax unless described as follows:	224	221	3	0
441452.4	with pneumomediastinum	8	8	0	0
441454.4	with hemomediastinum	91	91	0	0
441456.5	with blood loss > 20% by volume	53	53	0	0
441458.5	with tension pneumothorax	0	0	0	0
441460.5	with parenchymal laceration with massive air leak	18	18	0	0
441462.5	with systemic air embolus	0	0	0	0
441699.2	Pericardium NFS	0	0	0	0
441602.2	laceration (puncture)	10	10	0	0
441604.3	injury with tamponade without heart injury	10	1	9	0
441606.5	herniation of the heart	123	123	0	0
441800.2	Pleura (visceral, parietal, and mediastinal) laceration	0	0	0	0
441802.3	with hemo-/pneumothorax	5	5	0	0
441804.2	contusion	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
442299.7	Thoracic cavity injury NFS [Use this section <u>only</u> when there is no information on specific anatomical lesion.]	0	0	0	0
442202.3	with hemo-/pneumothorax	449	305	30	114
442204.3	with pneumomediastinum	0	0	0	0
442206.4	with hemomediastinum	0	0	0	0
442208.4	with blood loss > 20% by volume	0	0	0	0
442210.5	with tension pneumothorax	41	18	23	0
442212.5	with systemic air embolus	0	0	0	0
442214.1	Thoracic cavity chest wall strain	0	0	0	0
442402.2	Thoracic duct laceration	0	0	0	0
442699.3	Trachea and main stem bronchus NFS	0	0	0	0
442602.3	contusion (hematoma)	0	0	0	0
442604.3	laceration NFS	0	0	0	0
442606.3	no perforation (partial thickness)	0	0	0	0
442608.4	perforation (full thickness but not complete transection)	3	3	0	0
442610.5	complex (avulsion, rupture, transection)	16	16	0	0
442612.4	fracture NFS	0	0	0	0
442614.4	simple	2	2	0	0
442616.5	major with laryngeal-tracheal separation	1	1	0	0

Skeletal

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
450299.1	Rib cage NFS	0	0	0	0
450202.1	contusion	0	0	0	0
450210.1	fracture NFS	27	25	0	2
450210.2	multiple rib fractures NFS [Use if no other information is available.]	45	18	10	17
450211.3	with hemo-/pneumothorax	118	118	0	0
450212.1	1 rib	0	0	0	0
450214.3	with hemo-/pneumothorax (OIS Grade I)	2	2	0	0
450220.2	2-3 ribs any location, or multiple fractures of single rib, with stable chest or NFS (OIS Grade I, II or III)	4	2	2	0
450222.3	with hemo-/pneumothorax	335	240	20	75
450230.3	> 3 ribs on one side and ≤ 3 ribs on the other side, stable chest or NFS	159	146	13	0
450232.4	with hemo-/pneumothorax	772	427	325	21
450240.4	> 3 ribs on each of two sides, with stable chest or NFS	353	265	88	0
450242.5	with hemo-/pneumothorax	348	231	88	29
450250.3	open/displaced/comminuted (any or combination; ≥1 rib)	127	117	7	3
450252.4	with hemo-/pneumothorax	74	52	17	6
450260.4	flail (unstable chest wall, paradoxical chest movement) unilateral or NFS (OIS Grade III or IV)	164	28	64	73
450262.3	without lung contusion (OIS Grade III or IV)	11	11	0	0
450264.4	with lung contusion (OIS Grade III or IV)	46	25	16	4
450266.5	bilateral flail with or without lung contusion (OIS Grade V)	606	417	92	97

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
450268.5	< 15 yrs. old	0	0	0	0
450899.1	Sternum NFS	0	0	0	0
450802.1	contusion	0	0	0	0
450804.2	fracture (<i>OIS Grade II or III</i>)	22	16	6	0
	Total	10,782	7,861	1,896	1,024
	Total Occult	6,001	4,300	1,043	658

Abdomen and Pelvic Contents

Whole Area

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
515099.7	Blunt/Traumatic abdominal injury NFS	93	93	0	0
515999.7	died without further evaluation; no autopsy	39	25	14	0
590099.1	Skin/Subcutaneous tissue/Muscle NFS	0	0	0	0
590202.1	abrasion	0	0	0	0
590402.1	contusion (hematoma)	0	0	0	0
590600.1	laceration NFS	0	0	0	0
590602.1	minor (superficial)	0	0	0	0
590604.2	major (> 20cm long and into subcutaneous tissue)	0	0	0	0
590606.3	blood loss > 20% by volume	0	0	0	0
590800.1	avulsion NFS	0	0	0	0
590802.1	superficial (minor; $\leq 100\text{cm}^2$)	0	0	0	0
590804.2	major (> 100cm^2 but blood loss $\leq 20\%$ by volume)	0	0	0	0
590806.3	blood loss > 20% by volume	0	0	0	0
592000.1	Unspecified burn	0	0	0	0
592002.1	1st degree burn, > 1 yr. old	0	0	0	0

Vessels

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
520299.4	Aorta, abdominal NFS	0	0	0	0
520202.4	intimal tear, no disruption	0	0	0	0
520204.4	laceration (perforation, puncture) NFS	107	102	0	5
520206.4	minor	5	0	5	0
520208.5	major	50	49	0	2
520499.3	Celiac Artery NFS	0	0	0	0
520402.3	intimal tear, no disruption	0	0	0	0
520404.3	laceration (perforation, puncture) NFS	0	0	0	0
520406.4	minor	0	0	0	0
520408.5	major	0	0	0	0
520699.3	Iliac artery (common, internal, external) NFS	0	0	0	0
520602.3	intimal tear, no disruption	0	0	0	0
520604.3	laceration (perforation, puncture) NFS	3	3	0	0
520606.3	minor	2	2	0	0
520608.4	major	0	0	0	0
520899.3	Iliac vein (common) NFS	0	0	0	0
520802.3	laceration (perforation, puncture) NFS	0	0	0	0
520804.3	minor	0	0	0	0
520806.4	major	49	49	0	0
521099.2	Iliac vein (internal, external) NFS	0	0	0	0
521002.2	laceration (perforation, puncture) NFS	0	0	0	0
521004.2	minor	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
521006.3	major	0	0	0	0
521299.3	Vena cava, inferior NFS	0	0	0	0
521202.3	laceration (perforation, puncture) NFS	0	0	0	0
521204.3	minor with or without thrombosis	0	0	0	0
521206.4	major	58	58	0	0
521499.3	Other named arteries NFS (e.g., hepatic, renal, splenic, superior mesenteric)	0	0	0	0
521402.3	intimal tear, no disruption	4	4	0	0
521404.3	laceration (perforation, puncture) NFS	0	0	0	0
521406.3	minor	0	0	0	0
521408.4	major	18	3	16	0
521699.3	Other named veins NFS (e.g., portal, renal, splenic, superior mesenteric)	0	0	0	0
521602.3	laceration (perforation, puncture) NFS	6	6	0	0
521604.3	minor with or without thrombosis	7	7	0	0
521606.4	major	20	10	0	10

Internal Organs

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
540299.1	Adrenal gland NFS	0	0	0	0
540210.1	contusion (hematoma) NFS	0	0	0	0
540212.1	minor (superficial)	0	0	0	0
540214.2	major (large, deep)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
540220.1	laceration NFS	0	0	0	0
540222.1	minor (superficial)	0	0	0	0
540224.2	major (multiple lacerations)	0	0	0	0
540226.3	complex (avulsion; massive; rupture; stellate; tissue loss; blood loss > 20% by volume)	0	0	0	0
540499.1	Anus NFS	0	0	0	0
540410.1	contusion (hematoma)	0	0	0	0
540420.2	laceration NFS	0	0	0	0
540422.2	no perforation (partial thickness)	0	0	0	0
540424.3	perforation (full thickness but not complete transection)	0	0	0	0
540426.4	massive (avulsion; complex; rupture; tissue loss)	0	0	0	0
540699.2	Bladder (urinary) NFS	0	0	0	0
540610.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
540620.2	laceration NFS	0	0	0	0
540622.3	no perforation (partial thickness) <i>(OIS Grade I)</i>	0	0	0	0
540624.4	perforation (full thickness but not complete transection) <i>(OIS Grades II, III, IV)</i>	26	14	13	0
540626.4	massive (avulsion; complex; tissue loss) <i>(OIS Grades II, III, IV)</i>	0	0	0	0
540640.3	rupture NFS [Use this code only when a more detailed description is not available]	7	7	0	0
540899.2	Colon (large bowel) NFS	0	0	0	0
540810.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
540820.2	laceration NFS	0	0	0	0
540822.2	no perforation (partial thickness; < 50% of circumference) <i>(OIS Grades I and II)</i>	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
540824.3	perforation (full thickness; $\geq 50\%$ of circumference without transection) (OIS Grade III)	1	1	0	0
540826.4	massive (avulsion; complex; rupture; tissue loss; gross fecal contamination, transection, devascularization) (OIS Grades IV and V)	187	180	7	0
541099.2	Duodenum NFS	0	0	0	0
541010.2	contusion (hematoma) (OIS Grades I or II)	1	1	0	0
541020.3	laceration NFS	0	0	0	0
541022.3	disruption $< 50\%$ of circumference; no perforation (partial thickness or serosal tear) (OIS Grades I or II)	0	0	0	0
541023.3	disruption 50-75% circumference of D2; disruption 50-100% circumference of D1, D3, D4 (OIS Grade III)	0	0	0	0
541024.4	disruption $> 75\%$ of circumference of D2; involving ampulla or distal common bile duct perforation (full thickness but not complete transection) (OIS Grade IV)	0	0	0	0
541028.5	massive (avulsion; complex; rupture; tissue loss; gross enteric contamination; devascularization; massive disruption of duodenopancreatic complex) (OIS Grade V)	0	0	0	0
541299.2	Gallbladder NFS	0	0	0	0
541210.2	contusion (hematoma) (OIS Grade I)	0	0	0	0
541220.2	laceration (perforation) NFS (OIS Grade II)	0	0	0	0
541222.2	minor (superficial; no cystic duct involvement)	0	0	0	0
541224.3	massive (avulsion; complex; rupture; tissue loss; cystic duct; laceration or transection) (OIS Grade III)	7	7	0	0
541226.4	with common bile or hepatic duct "laceration" or transection (OIS Grades IV and V)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
541499.2	Jejunum-ileum (small bowel) NFS	11	11	0	0
541410.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
541420.2	laceration NFS	0	0	0	0
541422.2	no perforation (partial thickness; < 50% of circumference) <i>(OIS Grade I or II)</i>	0	0	0	0
541424.3	perforation (full thickness; ≥ 50 % of circumference without transection) <i>(OIS Grade III)</i>	92	81	0	11
541426.4	massive (avulsion; complex; rupture; tissue loss; transection; devascularization) <i>(OIS Grades IV or V)</i>	9	8	0	1
541699.2	Kidney NFS	0	0	0	0
541610.2	contusion (hematoma) NFS	4	4	0	0
541612.2	minor (superficial; subcapsular, nonexpanding, confined to renal retroperitoneum or without parenchymal laceration) <i>(OIS Grade I or II)</i>	0	0	0	0
541614.3	major (large; subcapsular, > 50% surface area or expanding)	1	0	1	0
541620.2	laceration NFS	0	0	0	0
541622.2	minor (superficial; < 1cm parenchymal depth of renal cortex without urinary extravasation) <i>(OIS Grade II)</i>	0	0	0	0
541624.3	moderate (> 1cm parenchymal depth of renal cortex without collecting system rupture or urinary extravasation) <i>(OIS Grade III)</i>	0	0	0	0
541626.4	major (extending through renal cortex, medulla and collecting system; main renal vessel involvement with contained hemorrhage) <i>(OIS Grade IV)</i>	310	304	6	0
541628.5	hilum avulsion; total destruction of organ and its vascular system <i>(OIS Grade V)</i>	37	33	4	0
541640.4	rupture NFS [Use this code <u>only</u> when a more detailed injury description is not available.]	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
541899.2	Liver NFS	0	0	0	0
541810.2	contusion (hematoma) NFS	0	0	0	0
541812.2	minor (superficial; subcapsular, ≤ 50% surface area, nonexpanding; intraparenchymal ≤ 10cm in diameter) (OIS Grade I or II)	0	0	0	0
541814.3	major (ruptured subcapsular or parenchymal, > 50% surface area or expanding; intraparenchymal > 10cm or expanding; subcapsular; blood loss > 20% by volume) (OIS Grade III)	0	0	0	0
541820.2	laceration NFS	33	23	10	0
541822.2	minor (superficial; ≤ 3cm parenchymal depth, ≤ 10cm in length, simple capsular tears; blood loss ≤ 20% by volume) (OIS Grade I or II)	103	100	3	0
541824.3	moderate (> 3cm parenchymal depth, with major duct involvement; blood loss > 20% by volume) (OIS Grade III)	121	117	0	4
541826.4	major (parenchymal disruption of ≤ 75% of hepatic lobe or 1-3 Couinard's segments within a single lobe; multiple lacerations > 3cm deep; burst injury) (OIS Grade IV)	283	224	35	24
541828.5	complex (parenchymal disruption of > 75% of hepatic lobe or involving > 3 Couinard's segments within a single lobe or involving retrohepatic vena cava/central hepatic vein/hepatic artery/portal vein) pulpefication (OIS Grade V)	275	221	35	19
541830.6	hepatic avulsion (total separation of all vascular attachments) (OIS Grade VI)	122	108	9	5
541840.4	rupture NFS [Use this code <u>only</u> when a more detailed injury description is not available.]	2	2	0	0
542099.2	Mesentery NFS	0	0	0	0
542010.2	contusion (hematoma)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
542020.2	laceration NFS	14	14	0	0
542022.2	minor (superficial)	0	0	0	0
542024.3	major (blood loss > 20% by volume)	5	5	0	0
542026.4	complex (avulsion; massive; rupture; stellate; tissue loss)	113	109	0	4
542299.2	Omentum NFS	0	0	0	0
542210.2	contusion (hematoma)	0	0	0	0
542220.2	laceration NFS	0	0	0	0
542222.2	minor (superficial)	0	0	0	0
542224.3	major (blood loss > 20% by volume)	0	0	0	0
542400.2	Ovarian (Fallopian) tube laceration	0	0	0	0
542699.1	Ovary NFS	0	0	0	0
542610.1	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
542620.2	laceration (perforation) NFS	0	0	0	0
542622.2	minor (superficial, ≤ 0.5cm) <i>(OIS Grade II)</i>	0	0	0	0
542624.3	major (avulsion; complex; rupture; deep, >0.5cm, complete parenchymal destruction, partial disruption of blood supply) <i>(OIS Grade III, IV or V)</i>	0	0	0	0
542899.2	Pancreas NFS	0	0	0	0
542810.2	contusion (hematoma) NFS	0	0	0	0
542812.2	minor (superficial; no evidence of duct involvement) <i>(OIS Grade I)</i>	0	0	0	0
542814.3	major (large; extensive; duct involvement) <i>(OIS Grade I or II)</i>	0	0	0	0
542820.2	laceration NFS	0	0	0	0
542822.2	minor (superficial; no evidence of duct involvement) <i>(OIS Grade I)</i>	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
542824.3	moderate (with major vessel or major duct involvement) (OIS Grade III)	0	0	0	0
542826.4	if involving ampulla (OIS Grade IV)	0	0	0	0
542828.4	major (<i>multiple</i> lacerations)	0	0	0	0
542830.4	if involving ampulla (OIS Grade IV)	0	0	0	0
542832.5	complex (avulsion; massive; rupture; stellate; tissue loss; massive disruption of pancreatic head) (OIS Grade V)	11	11	0	0
543099.1	Penis NFS	0	0	0	0
543010.1	contusion (hematoma)	0	0	0	0
543020.1	laceration (perforation) NFS	0	0	0	0
543022.1	minor (superficial)	0	0	0	0
543024.2	major	0	0	0	0
543026.3	complex (amputation; avulsion; massive; rupture)	0	0	0	0
543299.1	Perineum NFS	0	0	0	0
543210.1	contusion (hematoma)	0	0	0	0
543220.1	laceration (perforation) NFS	0	0	0	0
543222.1	minor (superficial)	0	0	0	0
543224.2	major	0	0	0	0
543226.3	complex (avulsion; massive; rupture)	0	0	0	0
543400.3	Placenta abruption NFS	0	0	0	0
543402.4	blood loss > 20% by volume	0	0	0	0
543699.2	Rectum NFS	0	0	0	0
543610.2	contusion (hematoma) (OIS Grade I)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
543620.2	laceration NFS	0	0	0	0
543622.2	no perforation (partial thickness; < 50% of circumference) (OIS Grades I and II)	0	0	0	0
543624.3	perforation (full thickness; ≥ 50% of circumference) (OIS Grade III)	0	0	0	0
543625.4	perforation (full thickness; extending into perineum) (OIS Grade IV)	0	0	0	0
543626.5	massive (avulsion; complex; rupture; tissue loss; devascularization; gross fecal contamination of pelvic space) (OIS Grade V)	0	0	0	0
543800.3	Retroperitoneum hemorrhage or hematoma	13	13	0	0
544099.1	Scrotum NFS	0	0	0	0
544010.1	contusion (hematoma)	0	0	0	0
544020.1	laceration (perforation) NFS	0	0	0	0
544022.1	minor (superficial)	0	0	0	0
544024.2	major (amputation; avulsion; complex)	0	0	0	0
544299.2	Spleen NFS	0	0	0	0
544210.2	contusion (hematoma) NFS	0	0	0	0
544212.2	minor (superficial; subcapsular ≤ 50% surface area; intraparenchymal, nonexpanding ≤ 5cm in diameter) (OIS Grade I or II)	0	0	0	0
544214.3	major (subcapsular > 50% surface area or expanding; ruptured subcapsular or parenchymal; intraparenchymal > 5cm in diameter or expanding) (OIS Grade III)	14	12	0	2
544220.2	laceration NFS (rupture)	11	9	2	0

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544222.2	minor (superficial; simple capsular tear ≤ 3cm parenchymal depth; no major (i.e., trabecular) vessel involvement) (OIS Grade I or II)	0	0	0	0
544224.3	moderate (no hilar or segmental parenchymal disruption or destruction; > 3cm parenchymal depth or involving major (i.e., trabecular) vessels) (OIS Grade III)	27	27	0	0
544226.4	major (involving segmental or hilar vessels producing major devascularization of > 25% of spleen with no hilar injury) (OIS Grade IV)	219	214	5	0
544228.5	complex (with hilar disruption producing total devascularization; tissue loss; avulsion; stellate; pulpefication) (OIS Grade V)	134	121	13	0
544240.3	rupture ("fracture") NFS [Use this code only when a more detailed injury description is not available.]	37	27	11	0
544499.2	Stomach NFS	0	0	0	0
544410.2	contusion (hematoma) (OIS Grade I)	0	0	0	0
544420.2	laceration NFS	0	0	0	0
544422.2	no perforation (partial thickness) (OIS Grade I)	0	0	0	0
544424.3	perforation (full thickness) (OIS Grades II and III)	1	1	0	0
544426.4	massive (avulsion; complex; rupture; tissue loss; with major vessel involvement) (OIS Grades IV and V)	0	0	0	0
544699.1	Testes NFS	0	0	0	0
544610.1	contusion (hematoma)	0	0	0	0
544620.1	laceration NFS	0	0	0	0
544622.1	minor (superficial)	0	0	0	0
544624.2	major (amputation; avulsion; complex; rupture; massive)	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
544899.2	Ureter NFS	0	0	0	0
544810.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
544820.2	laceration NFS	0	0	0	0
544822.2	no perforation (partial thickness) <i>(OIS Grade II)</i>	0	0	0	0
544824.3	perforation (full thickness) <i>(OIS Grade III)</i>	0	0	0	0
544826.3	massive (avulsion; complex; rupture; tissue loss; transection) <i>(OIS Grades IV and V)</i>	0	0	0	0
545099.2	Urethra NFS	0	0	0	0
545010.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
545020.2	laceration NFS	0	0	0	0
545022.2	no perforation (partial thickness) <i>(OIS Grade III)</i>	0	0	0	0
545024.3	perforation (full thickness) <i>(OIS Grade IV)</i>	0	0	0	0
545026.3	massive (avulsion; complex; rupture; tissue loss) <i>(OIS Grade IV)</i>	0	0	0	0
545028.4	with posterior tissue loss <i>(OIS Grade V)</i>	0	0	0	0
545299.1	Uterus NFS	0	0	0	0
545210.2	contusion (hematoma) <i>(OIS Grade I)</i>	0	0	0	0
545220.2	laceration (perforation) NFS	0	0	0	0
545222.2	minor (superficial; ≤ 1cm) <i>(OIS Grade II)</i>	0	0	0	0
545226.3	if pregnancy in the 2nd trimester or 3rd trimester	0	0	0	0
545230.3	major (placental abruption ≤ 50%; > 1cm) <i>(OIS Grade III)</i>	0	0	0	0
545234.3	if pregnancy in 2nd trimester	0	0	0	0
545236.4	if pregnancy in 3rd trimester	0	0	0	0

Code	Injury Description	Injuries which were Cause of Death	Injuries which were 1 of 3 Causes of Death	Injuries which were 1 of 2 Causes of Death	Injuries which were ONLY Cause of Death
545240.3	complex (avulsion; massive; rupture; involving uterine artery; placental abruption > 50%) (OIS Grades IV and V)	0	0	0	0
545242.4	if pregnancy in 2nd trimester	3	0	3	0
545246.5	if pregnancy in 3rd trimester	0	0	0	0
545499.1	Vagina NFS	0	0	0	0
545410.1	contusion (hematoma) (OIS Grade I)	0	0	0	0
545420.1	laceration (perforation) NFS	0	0	0	0
545422.1	minor (superficial) (OIS Grade II)	0	0	0	0
545424.2	major (deep) (OIS Grade III)	0	0	0	0
545426.3	complex (avulsion; massive; rupture) (OIS Grades IV and V)	0	0	0	0
545699.1	Vulva NFS	0	0	0	0
545610.1	contusion (hematoma) (OIS Grade I)	0	0	0	0
545620.1	laceration (perforation) NFS	0	0	0	0
545622.1	minor (superficial) (OIS Grade II)	0	0	0	0
545624.2	major (deep) (OIS Grade III)	0	0	0	0
545626.3	complex (avulsion; massive; rupture) (OIS Grades IV and V)	0	0	0	0
	Total	2,694	2,416	192	87
	Total Occult	2,511	2,247	176	87