# Motor Vehicle Crash—Car, Truck, or Bus

#### **Date**

August 26, 2021

#### **Definition**

The patient was an occupant of a three-wheeled motor vehicle, car, pick-up truck, van, heavy transport vehicle, or bus injured in a motor vehicle crash.

# **Criteria Description**

Patient care reports where:

• cause of injury is occupant of a three-wheeled motor vehicle, car, pick-up truck, van, heavy transport vehicle, or bus injured in a motor vehicle crash.

### **Pseudocode**

Patient care reports where:

elnjury.01 Cause of Injury:

| Added by<br>NEMSIS<br>(see |        |  |
|----------------------------|--------|--|
| Discussion)                | Code   | Description  |
| Υ                          | V30    | Occupant of three-wheeled motor vehicle injured in collision with pedestrian or animal                                 |
|                            | V30.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with pedestrian or animal              |
|                            | V30.5* | Driver of three-wheeled motor vehicle injured in collision with pedestrian or animal in traffic accident               |
|                            | V30.6* | Passenger in three-wheeled motor vehicle injured in collision with pedestrian or animal in traffic accident            |
|                            | V30.7* | Person on outside of three-wheeled motor vehicle injured in collision with pedestrian or animal in traffic accident    |
|                            | V30.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with pedestrian or animal in traffic accident |

| Added  | by     |   |
|--------|--------|---|
| NEMSI  | S      |   |
| (see   |        |   |
| Discus |        | Description   |
| Υ      | V31    | Occupant of three-wheeled motor vehicle injured in collision with pedal cycle   |
|        | V31.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with pedal cycle                                      |
|        | V31.5* | Driver of three-wheeled motor vehicle injured in collision with pedal cycle in traffic accident                                       |
|        | V31.6* | Passenger of three-wheeled motor vehicle injured in collision with pedal cycle in traffic accident                                    |
|        | V31.7* | Person on outside of three-wheeled motor vehicle injured in collision with pedal cycle in traffic accident                            |
|        | V31.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with pedal cycle in traffic accident                         |
| Υ      | V32    | Occupant of three-wheeled motor vehicle injured in collision with two- or three-wheeled motor vehicle                                 |
|        | V32.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with two- or three-wheeled motor vehicle              |
|        | V32.5* | Driver of three-wheeled motor vehicle injured in collision with two- or three-<br>wheeled motor vehicle in traffic accident           |
|        | V32.6* | Passenger in three-wheeled motor vehicle injured in collision with two- or three-wheeled motor vehicle in traffic accident            |
|        | V32.7* | Person on outside of three-wheeled motor vehicle injured in collision with two- or three-wheeled motor vehicle in traffic accident    |
|        | V32.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with two- or three-wheeled motor vehicle in traffic accident |
| Υ      | V33    | Occupant of three-wheeled motor vehicle injured in collision with car, pick-<br>up truck or van                                       |
|        | V33.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with car, pick-up truck or van                        |
|        | V33.5* | Driver of three-wheeled motor vehicle injured in collision with car, pick-up truck or van in traffic accident                         |
|        | V33.6* | Passenger in three-wheeled motor vehicle injured in collision with car, pick-<br>up truck or van in traffic accident                  |
|        | V33.7* | Person on outside of three-wheeled motor vehicle injured in collision with car, pick-up truck or van in traffic accident              |
|        | V33.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with car, pick-up truck or van in traffic accident           |
| Υ      | V34    | Occupant of three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus                                      |
|        | V34.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus                   |
|        | V34.5* | Driver of three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus in traffic accident                    |
|        | V34.6* | Passenger in three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus in traffic accident                 |
|        |        |   |

| Added by<br>NEMSIS<br>(see |        |  |
|----------------------------|--------|--|
| Discussion)                | Code   | Description  |
| Discussion                 | V34.7* | Person on outside of three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus in traffic accident      |
|                            | V34.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus in traffic accident   |
| Υ                          | V35    | Occupant of three-wheeled motor vehicle injured in collision with railway train or railway vehicle                                 |
|                            | V35.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with railway train or railway vehicle              |
|                            | V35.5* | Driver of three-wheeled motor vehicle injured in collision with railway train or railway vehicle in traffic accident               |
|                            | V35.6* | Passenger in three-wheeled motor vehicle injured in collision with railway train or railway vehicle in traffic accident            |
|                            | V35.7* | Person on outside of three-wheeled motor vehicle injured in collision with railway train or railway vehicle in traffic accident    |
|                            | V35.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with railway train or railway vehicle in traffic accident |
| Υ                          | V36    | Occupant of three-wheeled motor vehicle injured in collision with other nonmotor vehicle   |
|                            | V36.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with other nonmotor vehicle                        |
|                            | V36.5* | Driver of three-wheeled motor vehicle injured in collision with other nonmotor vehicle in traffic accident                         |
|                            | V36.6* | Passenger in three-wheeled motor vehicle injured in collision with other nonmotor vehicle in traffic accident                      |
|                            | V36.7* | Person on outside of three-wheeled motor vehicle injured in collision with other nonmotor vehicle in traffic accident              |
|                            | V36.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with other nonmotor vehicle in traffic accident           |
| Υ                          | V37    | Occupant of three-wheeled motor vehicle injured in collision with fixed or stationary object                                       |
|                            | V37.4* | Person boarding or alighting a three-wheeled motor vehicle injured in collision with fixed or stationary object                    |
|                            | V37.5* | Driver of three-wheeled motor vehicle injured in collision with fixed or<br>stationary object in traffic accident                  |
|                            | V37.6* | Passenger in three-wheeled motor vehicle injured in collision with fixed or<br>stationary object in traffic accident               |
|                            | V37.7* | Person on outside of three-wheeled motor vehicle injured in collision with fixed or stationary object in traffic accident          |
|                            | V37.9* | Unspecified occupant of three-wheeled motor vehicle injured in collision with fixed or stationary object in traffic accident       |
| Υ                          | V38    | Occupant of three-wheeled motor vehicle injured in noncollision transport accident   |
|                            | V38.4* | Person boarding or alighting a three-wheeled motor vehicle injured in<br>noncollision transport accident                           |

| Added by<br>NEMSIS<br>(see |         |  |
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| Discussion)                | Code    | Description  |
| 2.50035.6117               | V38.5*  | Driver of three-wheeled motor vehicle injured in noncollision transport accident in traffic accident                                   |
|                            | V38.6*  | Passenger in three-wheeled motor vehicle injured in noncollision transport accident in traffic accident                                |
|                            | V38.7*  | Person on outside of three-wheeled motor vehicle injured in noncollision transport accident in traffic accident                        |
|                            | V38.9*  | Unspecified occupant of three-wheeled motor vehicle injured in noncollision transport accident in traffic accident                     |
| Υ                          | V39.4   | Driver of three-wheeled motor vehicle injured in collision with other and unspecified motor vehicles in traffic accident               |
|                            | V39.40* | Driver of three-wheeled motor vehicle injured in collision with unspecified motor vehicles in traffic accident                         |
|                            | V39.49* | Driver of three-wheeled motor vehicle injured in collision with other motor vehicles in traffic accident                               |
| Υ                          | V39.5   | Passenger in three-wheeled motor vehicle injured in collision with other and unspecified motor vehicles in traffic accident            |
|                            | V39.50* | Passenger in three-wheeled motor vehicle injured in collision with unspecified motor vehicles in traffic accident                      |
|                            | V39.59* | Passenger in three-wheeled motor vehicle injured in collision with other motor vehicles in traffic accident                            |
| Υ                          | V39.6   | Unspecified occupant of three-wheeled motor vehicle injured in collision with other and unspecified motor vehicles in traffic accident |
|                            | V39.60* | Unspecified occupant of three-wheeled motor vehicle injured in collision with unspecified motor vehicles in traffic accident           |
|                            | V39.69* | Unspecified occupant of three-wheeled motor vehicle injured in collision with other motor vehicles in traffic accident                 |
| Υ                          | V39.8   | Occupant (driver) (passenger) of three-wheeled motor vehicle injured in other specified transport accidents                            |
|                            | V39.81* | Occupant (driver) (passenger) of three-wheeled motor vehicle injured in transport accident with military vehicle                       |
|                            | V39.89* | Occupant (driver) (passenger) of three-wheeled motor vehicle injured in other specified transport accidents                            |
|                            | V39.9*  | Occupant (driver) (passenger) of three-wheeled motor vehicle injured in unspecified traffic accident                                   |
| Υ                          | V40     | Car occupant injured in collision with pedestrian or animal  |
|                            | V40.4*  | Person boarding or alighting a car injured in collision with pedestrian or animal  |
|                            | V40.5*  | Car driver injured in collision with pedestrian or animal in traffic accident  |
|                            | V40.6*  | Car passenger injured in collision with pedestrian or animal in traffic accident   |
|                            | V40.7*  | Person on outside of car injured in collision with pedestrian or animal in traffic accident  |
|                            | V40.9*  | Unspecified car occupant injured in collision with pedestrian or animal in traffic accident  |

| Added by<br>NEMSIS |         |  |
|--------------------|---------|--|
| (see               |         |  |
| Discussion)        | Code    | Description  |
| Υ                  | V41     | Car occupant injured in collision with pedal cycle   |
|                    | V41.4*  | Person boarding or alighting a car injured in collision with pedal cycle                                   |
|                    | V41.5*  | Car driver injured in collision with pedal cycle in traffic accident                                       |
|                    | V41.6*  | Car passenger injured in collision with pedal cycle in traffic accident                                    |
|                    | V41.7*  | Person on outside of car injured in collision with pedal cycle in traffic accident                         |
|                    | V41.9*  | Unspecified car occupant injured in collision with pedal cycle in traffic accident                         |
| Υ                  | V42     | Car occupant injured in collision with two- or three-wheeled motor vehicle                                 |
|                    | V42.4*  | Person boarding or alighting a car injured in collision with two- or three-<br>wheeled motor vehicle       |
|                    | V42.5*  | Car driver injured in collision with two- or three-wheeled motor vehicle in traffic accident               |
|                    | V42.6*  | Car passenger injured in collision with two- or three-wheeled motor vehicle in traffic accident            |
|                    | V42.7*  | Person on outside of car injured in collision with two- or three-wheeled motor vehicle in traffic accident |
|                    | V42.9*  | Unspecified car occupant injured in collision with two- or three-wheeled motor vehicle in traffic accident |
| Υ                  | V43     | Car occupant injured in collision with car, pick-up truck or van   |
| Υ                  | V43.4   | Person boarding or alighting a car injured in collision with car, pick-up truck or van                     |
|                    | V43.41* | Person boarding or alighting a car injured in collision with sport utility vehic                           |
|                    | V43.42* | Person boarding or alighting a car injured in collision with other type car                                |
|                    | V43.43* | Person boarding or alighting a car injured in collision with pick-up truck                                 |
|                    | V43.44* | Person boarding or alighting a car injured in collision with van   |
| Υ                  | V43.5   | Car driver injured in collision with car, pick-up truck or van in traffic acciden                          |
|                    | V43.51* | Car driver injured in collision with sport utility vehicle in traffic accident                             |
|                    | V43.52* | Car driver injured in collision with other type car in traffic accident                                    |
|                    | V43.53* | Car driver injured in collision with pick-up truck in traffic accident                                     |
|                    | V43.54* | Car driver injured in collision with van in traffic accident   |
| Υ                  | V43.6   | Car passenger injured in collision with car, pick-up truck or van in traffic accident                      |
|                    | V43.61* | Car passenger injured in collision with sport utility vehicle in traffic accident                          |
|                    | V43.62* | Car passenger injured in collision with other type car in traffic accident                                 |
|                    | V43.63* | Car passenger injured in collision with pick-up truck in traffic accident                                  |
|                    | V43.64* | Car passenger injured in collision with van in traffic accident  |
| Υ                  | V43.7   | Person on outside of car injured in collision with car, pick-up truck or van in traffic accident           |
|                    | V43.71* | Person on outside of car injured in collision with sport utility vehicle in traffi accident                |

| Added by            |         |   |
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| NEMSIS              |         |   |
| (see<br>Discussion) | Code    | Description   |
| Discussion          | V43.72* | Person on outside of car injured in collision with other type car in traffic                            |
|                     | V 13.72 | accident  |
|                     | V43.73* | Person on outside of car injured in collision with pick-up truck in traffic accident                    |
|                     | V43.74* | Person on outside of car injured in collision with van in traffic accident                              |
| Υ                   | V43.9   | Unspecified car occupant injured in collision with car, pick-up truck or van in traffic accident        |
|                     | V43.91* | Unspecified car occupant injured in collision with sport utility vehicle in traffic accident            |
|                     | V43.92* | Unspecified car occupant injured in collision with other type car in traffic accident                   |
|                     | V43.93* | Unspecified car occupant injured in collision with pick-up truck in traffic accident                    |
|                     | V43.94* | Unspecified car occupant injured in collision with van in traffic accident                              |
| Υ                   | V44     | Car occupant injured in collision with heavy transport vehicle or bus                                   |
|                     | V44.4*  | Person boarding or alighting a car injured in collision with heavy transport vehicle or bus             |
|                     | V44.5*  | Car driver injured in collision with heavy transport vehicle or bus in traffic accident                 |
|                     | V44.6*  | Car passenger injured in collision with heavy transport vehicle or bus in traffic accident              |
|                     | V44.7*  | Person on outside of car injured in collision with heavy transport vehicle or bus in traffic accident   |
|                     | V44.9*  | Unspecified car occupant injured in collision with heavy transport vehicle or bus in traffic accident   |
| Υ                   | V45     | Car occupant injured in collision with railway train or railway vehicle                                 |
|                     | V45.4*  | Person boarding or alighting a car injured in collision with railway train or railway vehicle           |
|                     | V45.5*  | Car driver injured in collision with railway train or railway vehicle in traffic accident               |
|                     | V45.6*  | Car passenger injured in collision with railway train or railway vehicle in traffic accident            |
|                     | V45.7*  | Person on outside of car injured in collision with railway train or railway vehicle in traffic accident |
|                     | V45.9*  | Unspecified car occupant injured in collision with railway train or railway vehicle in traffic accident |
| Υ                   | V46     | Car occupant injured in collision with other nonmotor vehicle   |
|                     | V46.4*  | Person boarding or alighting a car injured in collision with other nonmotor vehicle                     |
|                     | V46.5*  | Car driver injured in collision with other nonmotor vehicle in traffic accident                         |
|                     | V46.6*  | Car passenger injured in collision with other nonmotor vehicle in traffic accident                      |

| Added by<br>NEMSIS  |         |  |
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| (see<br>Discussion) | Code    | Description  |
| Discussion          | V46.7*  | Person on outside of car injured in collision with other nonmotor vehicle in traffic accident                          |
|                     | V46.9*  | Unspecified car occupant injured in collision with other nonmotor vehicle in traffic accident                          |
| Υ                   | V47     | Car occupant injured in collision with fixed or stationary object  |
|                     | V47.4*  | Person boarding or alighting a car injured in collision with fixed or stationary object                                |
|                     | V47.5*  | Car driver injured in collision with fixed or stationary object in traffic accident                                    |
|                     | V47.51* | Driver of sport utility vehicle injured in collision with fixed or stationary object in traffic accident               |
|                     | V47.52* | Driver of other type car injured in collision with fixed or stationary object in traffic accident                      |
|                     | V47.6*  | Car passenger injured in collision with fixed or stationary object in traffic accident                                 |
|                     | V47.61* | Passenger of sport utility vehicle injured in collision with fixed or stationary object in traffic accident            |
|                     | V47.62* | Passenger of other type car injured in collision with fixed or stationary object in traffic accident                   |
|                     | V47.7*  | Person on outside of car injured in collision with fixed or stationary object in traffic accident                      |
|                     | V47.9*  | Unspecified car occupant injured in collision with fixed or stationary object in traffic accident                      |
|                     | V47.91* | Unspecified occupant of sport utility vehicle injured in collision with fixed or stationary object in traffic accident |
|                     | V47.92* | Unspecified occupant of other type car injured in collision with fixed or stationary object in traffic accident        |
| Υ                   | V48     | Car occupant injured in noncollision transport accident  |
|                     | V48.4*  | Person boarding or alighting a car injured in noncollision transport accident  |
|                     | V48.5*  | Car driver injured in noncollision transport accident in traffic accident  |
|                     | V48.6*  | Car passenger injured in noncollision transport accident in traffic accident   |
|                     | V48.7*  | Person on outside of car injured in noncollision transport accident in traffic accident                                |
|                     | V48.9*  | Unspecified car occupant injured in noncollision transport accident in traffic accident                                |
| Υ                   | V49     | Car occupant injured in other and unspecified transport accidents  |
|                     | V49.40* | Driver injured in collision with unspecified motor vehicles in traffic accident  |
|                     | V49.49* | Driver injured in collision with other motor vehicles in traffic accident  |
| Υ                   | V49.5   | Passenger injured in collision with other and unspecified motor vehicles in traffic accident                           |
|                     | V49.50* | Passenger injured in collision with unspecified motor vehicles in traffic accident                                     |
|                     | V49.59* | Passenger injured in collision with other motor vehicles in traffic accident   |

| Added by<br>NEMSIS<br>(see |         |   |
|----------------------------|---------|---|
| Discussion)                | Code    | Description   |
| Y                          | V49.6   | Unspecified car occupant injured in collision with other and unspecified motor vehicles in traffic accident       |
|                            | V49.60* | Unspecified car occupant injured in collision with unspecified motor vehicles in traffic accident                 |
|                            | V49.69* | Unspecified car occupant injured in collision with other motor vehicles in traffic accident                       |
| Υ                          | V49.8   | Car occupant (driver) (passenger) injured in other specified transport accidents                                  |
|                            | V49.81* | Car occupant (driver) (passenger) injured in transport accident with military vehicle                             |
|                            | V49.88* | Car occupant (driver) (passenger) injured in other specified transport accidents                                  |
|                            | V49.9*  | Car occupant (driver) (passenger) injured in unspecified traffic accident   |
| Υ                          | V50     | Occupant of pick-up truck or van injured in collision with pedestrian or animal                                   |
|                            | V50.4*  | Person boarding or alighting a pick-up truck or van injured in collision with pedestrian or animal                |
|                            | V50.5*  | Driver of pick-up truck or van injured in collision with pedestrian or animal in traffic accident                 |
|                            | V50.6*  | Passenger in pick-up truck or van injured in collision with pedestrian or animal in traffic accident              |
|                            | V50.7*  | Person on outside of pick-up truck or van injured in collision with pedestrian or animal in traffic accident      |
|                            | V50.9*  | Unspecified occupant of pick-up truck or van injured in collision with pedestrian or animal in traffic accident   |
| Υ                          | V51     | Occupant of pick-up truck or van injured in collision with pedal cycle  |
|                            | V51.4*  | Person boarding or alighting a pick-up truck or van injured in collision with pedal cycle                         |
|                            | V51.5*  | Driver of pick-up truck or van injured in collision with pedal cycle in traffic accident                          |
|                            | V51.6*  | Passenger in pick-up truck or van injured in collision with pedal cycle in traffic accident                       |
|                            | V51.7*  | Person on outside of pick-up truck or van injured in collision with pedal cycle in traffic accident               |
|                            | V51.9*  | Unspecified occupant of pick-up truck or van injured in collision with pedal cycle in traffic accident            |
| Υ                          | V52     | Occupant of pick-up truck or van injured in collision with two- or three-<br>wheeled motor vehicle                |
|                            | V52.4*  | Person boarding or alighting a pick-up truck or van injured in collision with two- or three-wheeled motor vehicle |
|                            | V52.5*  | Driver of pick-up truck or van injured in collision with two- or three-wheeled motor vehicle in traffic accident  |

| Added by<br>NEMSIS<br>(see |        |  |
|----------------------------|--------|--|
| Discussion)                | Code   | Description  |
| ,                          | V52.6* | Passenger in pick-up truck or van injured in collision with two- or three-<br>wheeled motor vehicle in traffic accident        |
|                            | V52.7* | Person on outside of pick-up truck or van injured in collision with two- or three-wheeled motor vehicle in traffic accident    |
|                            | V52.9* | Unspecified occupant of pick-up truck or van injured in collision with two- or three-wheeled motor vehicle in traffic accident |
| Υ                          | V53    | Occupant of pick-up truck or van injured in collision with car, pick-up truck or van   |
|                            | V53.4* | Person boarding or alighting a pick-up truck or van injured in collision with car, pick-up truck or van                        |
|                            | V53.5* | Driver of pick-up truck or van injured in collision with car, pick-up truck or van in traffic accident                         |
|                            | V53.6* | Passenger in pick-up truck or van injured in collision with car, pick-up truck or van in traffic accident                      |
|                            | V53.7* | Person on outside of pick-up truck or van injured in collision with car, pick-up truck or van in traffic accident              |
|                            | V53.9* | Unspecified occupant of pick-up truck or van injured in collision with car, pick-up truck or van in traffic accident           |
| Υ                          | V54    | Occupant of pick-up truck or van injured in collision with heavy transport vehicle or bus                                      |
|                            | V54.4* | Person boarding or alighting a pick-up truck or van injured in collision with heavy transport vehicle or bus                   |
|                            | V54.5* | Driver of pick-up truck or van injured in collision with heavy transport vehicle or bus in traffic accident                    |
|                            | V54.6* | Passenger in pick-up truck or van injured in collision with heavy transport vehicle or bus in traffic accident                 |
|                            | V54.7* | Person on outside of pick-up truck or van injured in collision with heavy<br>transport vehicle or bus in traffic accident      |
|                            | V54.9* | Unspecified occupant of pick-up truck or van injured in collision with heavy transport vehicle or bus in traffic accident      |
| Υ                          | V55    | Occupant of pick-up truck or van injured in collision with railway train or railway vehicle                                    |
|                            | V55.4* | Person boarding or alighting a pick-up truck or van injured in collision with railway train or railway vehicle                 |
|                            | V55.5* | Driver of pick-up truck or van injured in collision with railway train or railway vehicle in traffic accident                  |
|                            | V55.6* | Passenger in pick-up truck or van injured in collision with railway train or railway vehicle in traffic accident               |
|                            | V55.7* | Person on outside of pick-up truck or van injured in collision with railway train or railway vehicle in traffic accident       |
|                            | V55.9* | Unspecified occupant of pick-up truck or van injured in collision with railway train or railway vehicle in traffic accident    |
| Υ                          | V56    | Occupant of pick-up truck or van injured in collision with other nonmotor vehicle  |

Added by **NEMSIS** *(see* Discussion) Code Description V56.4\* Person boarding or alighting a pick-up truck or van injured in collision with other nonmotor vehicle V56.5\* Driver of pick-up truck or van injured in collision with other nonmotor vehicle in traffic accident V56.6\* Passenger in pick-up truck or van injured in collision with other nonmotor vehicle in traffic accident V56.7\* Person on outside of pick-up truck or van injured in collision with other nonmotor vehicle in traffic accident V56.9\* Unspecified occupant of pick-up truck or van injured in collision with other nonmotor vehicle in traffic accident Υ V57 Occupant of pick-up truck or van injured in collision with fixed or stationary object V57.4\* Person boarding or alighting a pick-up truck or van injured in collision with fixed or stationary object V57.5\* Driver of pick-up truck or van injured in collision with fixed or stationary object in traffic accident V57.6\* Passenger in pick-up truck or van injured in collision with fixed or stationary object in traffic accident V57.7\* Person on outside of pick-up truck or van injured in collision with fixed or stationary object in traffic accident V57.9\* Unspecified occupant of pick-up truck or van injured in collision with fixed or stationary object in traffic accident Υ V58 Occupant of pick-up truck or van injured in noncollision transport accident V58.4\* Person boarding or alighting a pick-up truck or van injured in noncollision transport accident V58.5\* Driver of pick-up truck or van injured in noncollision transport accident in traffic accident V58.6\* Passenger in pick-up truck or van injured in noncollision transport accident in traffic accident V58.7\* Person on outside of pick-up truck or van injured in noncollision transport accident in traffic accident V58.9\* Unspecified occupant of pick-up truck or van injured in noncollision transport accident in traffic accident Υ V59 Occupant of pick-up truck or van injured in other and unspecified transport accidents Υ V59.4 Driver of pick-up truck or van injured in collision with other and unspecified motor vehicles in traffic accident V59.40\* Driver of pick-up truck or van injured in collision with unspecified motor vehicles in traffic accident V59.49\* Driver of pick-up truck or van injured in collision with other motor vehicles in traffic accident Υ V59.5 Passenger in pick-up truck or van injured in collision with other and unspecified motor vehicles in traffic accident

| Added by<br>NEMSIS |                        |   |
|--------------------|------------------------|---|
| (see               | Cada                   | Description   |
| Discussion)        | <i>Code</i><br>V59.50* | Description  Passenger in pick-up truck or van injured in collision with unspecified motor vehicles in traffic accident         |
|                    | V59.59*                | Passenger in pick-up truck or van injured in collision with other motor vehicles in traffic accident                            |
| Υ                  | V59.6                  | Unspecified occupant of pick-up truck or van injured in collision with other and unspecified motor vehicles in traffic accident |
|                    | V59.60*                | Unspecified occupant of pick-up truck or van injured in collision with unspecified motor vehicles in traffic accident           |
|                    | V59.69*                | Unspecified occupant of pick-up truck or van injured in collision with other motor vehicles in traffic accident                 |
| Υ                  | V59.8                  | Occupant (driver) (passenger) of pick-up truck or van injured in other specified transport accidents                            |
|                    | V59.81*                | Occupant (driver) (passenger) of pick-up truck or van injured in transport accident with military vehicle                       |
|                    | V59.88*                | Occupant (driver) (passenger) of pick-up truck or van injured in other specified transport accidents                            |
|                    | V59.9*                 | Occupant (driver) (passenger) of pick-up truck or van injured in unspecified traffic accident                                   |
| Υ                  | V60                    | Occupant of heavy transport vehicle injured in collision with pedestrian or animal  |
|                    | V60.4*                 | Person boarding or alighting a heavy transport vehicle injured in collision with pedestrian or animal                           |
|                    | V60.5*                 | Driver of heavy transport vehicle injured in collision with pedestrian or<br>animal in traffic accident                         |
|                    | V60.6*                 | Passenger in heavy transport vehicle injured in collision with pedestrian or<br>animal in traffic accident                      |
|                    | V60.7*                 | Person on outside of heavy transport vehicle injured in collision with<br>pedestrian or animal in traffic accident              |
|                    | V60.9*                 | Unspecified occupant of heavy transport vehicle injured in collision with pedestrian or animal in traffic accident              |
| Υ                  | V61                    | Occupant of heavy transport vehicle injured in collision with pedal cycle   |
|                    | V61.4*                 | Person boarding or alighting a heavy transport vehicle injured in collision with pedal cycle while boarding or alighting        |
|                    | V61.5*                 | Driver of heavy transport vehicle injured in collision with pedal cycle in traffic accident                                     |
|                    | V61.6*                 | Passenger in heavy transport vehicle injured in collision with pedal cycle in traffic accident                                  |
|                    | V61.7*                 | Person on outside of heavy transport vehicle injured in collision with pedal cycle in traffic accident                          |
|                    | V61.9*                 | Unspecified occupant of heavy transport vehicle injured in collision with pedal cycle in traffic accident                       |
| Υ                  | V62                    | Occupant of heavy transport vehicle injured in collision with two- or three-<br>wheeled motor vehicle                           |

Added by **NEMSIS** *(see* Discussion) Code Description V62.4\* Person boarding or alighting a heavy transport vehicle injured in collision with two- or three-wheeled motor vehicle V62.5\* Driver of heavy transport vehicle injured in collision with two- or threewheeled motor vehicle in traffic accident V62.6\* Passenger in heavy transport vehicle injured in collision with two- or threewheeled motor vehicle in traffic accident V62.7\* Person on outside of heavy transport vehicle injured in collision with two- or three-wheeled motor vehicle in traffic accident V62.9\* Unspecified occupant of heavy transport vehicle injured in collision with twoor three-wheeled motor vehicle in traffic accident Υ V63 Occupant of heavy transport vehicle injured in collision with car, pick-up truck or van V63.4\* Person boarding or alighting a heavy transport vehicle injured in collision with car, pick-up truck or van V63.5\* Driver of heavy transport vehicle injured in collision with car, pick-up truck or van in traffic accident V63.6\* Passenger in heavy transport vehicle injured in collision with car, pick-up truck or van in traffic accident V63.7\* Person on outside of heavy transport vehicle injured in collision with car, pick-up truck or van in traffic accident V63.9\* Unspecified occupant of heavy transport vehicle injured in collision with car, pick-up truck or van in traffic accident Υ V64 Occupant of heavy transport vehicle injured in collision with heavy transport vehicle or bus V64.4\* Person boarding or alighting a heavy transport vehicle injured in collision with heavy transport vehicle or bus while boarding or alighting V64.5\* Driver of heavy transport vehicle injured in collision with heavy transport vehicle or bus in traffic accident V64.6\* Passenger in heavy transport vehicle injured in collision with heavy transport vehicle or bus in traffic accident V64.7\* Person on outside of heavy transport vehicle injured in collision with heavy transport vehicle or bus in traffic accident V64.9\* Unspecified occupant of heavy transport vehicle injured in collision with heavy transport vehicle or bus in traffic accident Υ V65 Occupant of heavy transport vehicle injured in collision with railway train or railway vehicle V65.4\* Person boarding or alighting a heavy transport vehicle injured in collision with railway train or railway vehicle V65.5\* Driver of heavy transport vehicle injured in collision with railway train or railway vehicle in traffic accident V65.6\* Passenger in heavy transport vehicle injured in collision with railway train or railway vehicle in traffic accident V65.7\* Person on outside of heavy transport vehicle injured in collision with railway train or railway vehicle in traffic accident

| Added by<br>NEMSIS |         |  |
|--------------------|---------|--|
| (see               |         |  |
| Discussion)        | Code    | Description  |
|                    | V65.9*  | Unspecified occupant of heavy transport vehicle injured in collision with  |
|                    |         | railway train or railway vehicle in traffic accident   |
| Υ                  | V66     | Occupant of heavy transport vehicle injured in collision with other nonmotor vehicle                                     |
|                    | V66.4*  | Person boarding or alighting a heavy transport vehicle injured in collision with other nonmotor vehicle                  |
|                    | V66.5*  | Driver of heavy transport vehicle injured in collision with other nonmotor vehicle in traffic accident                   |
|                    | V66.6*  | Passenger in heavy transport vehicle injured in collision with other nonmotor vehicle in traffic accident                |
|                    | V66.7*  | Person on outside of heavy transport vehicle injured in collision with other nonmotor vehicle in traffic accident        |
|                    | V66.9*  | Unspecified occupant of heavy transport vehicle injured in collision with other nonmotor vehicle in traffic accident     |
| Υ                  | V67     | Occupant of heavy transport vehicle injured in collision with fixed or stationary object                                 |
|                    | V67.4*  | Person boarding or alighting a heavy transport vehicle injured in collision with fixed or stationary object              |
|                    | V67.5*  | Driver of heavy transport vehicle injured in collision with fixed or stationary object in traffic accident               |
|                    | V67.6*  | Passenger in heavy transport vehicle injured in collision with fixed or stationary object in traffic accident            |
|                    | V67.7*  | Person on outside of heavy transport vehicle injured in collision with fixed or stationary object in traffic accident    |
|                    | V67.9*  | Unspecified occupant of heavy transport vehicle injured in collision with fixed or stationary object in traffic accident |
| Υ                  | V68     | Occupant of heavy transport vehicle injured in noncollision transport accident   |
|                    | V68.4*  | Person boarding or alighting a heavy transport vehicle injured in noncollision transport accident                        |
|                    | V68.5*  | Driver of heavy transport vehicle injured in noncollision transport accident in traffic accident                         |
|                    | V68.6*  | Passenger in heavy transport vehicle injured in noncollision transport accident in traffic accident                      |
|                    | V68.7*  | Person on outside of heavy transport vehicle injured in noncollision transport accident in traffic accident              |
|                    | V68.9*  | Unspecified occupant of heavy transport vehicle injured in noncollision transport accident in traffic accident           |
| Υ                  | V69     | Occupant of heavy transport vehicle injured in other and unspecified transport accidents                                 |
| Υ                  | V69.4   | Driver of heavy transport vehicle injured in collision with other and unspecified motor vehicles in traffic accident     |
|                    | V69.40* | Driver of heavy transport vehicle injured in collision with unspecified motor vehicles in traffic accident               |

| Added by<br>NEMSIS<br>(see |         |  |
|----------------------------|---------|--|
| Discussion)                | Code    | Description  |
| Discussiony                | V69.49* | Driver of heavy transport vehicle injured in collision with other motor vehicles in traffic accident                               |
| Υ                          | V69.5   | Passenger in heavy transport vehicle injured in collision with other and unspecified motor vehicles in traffic accident            |
|                            | V69.50* | Passenger in heavy transport vehicle injured in collision with unspecified motor vehicles in traffic accident                      |
|                            | V69.59* | Passenger in heavy transport vehicle injured in collision with other motor vehicles in traffic accident                            |
| Υ                          | V69.6   | Unspecified occupant of heavy transport vehicle injured in collision with other and unspecified motor vehicles in traffic accident |
|                            | V69.60* | Unspecified occupant of heavy transport vehicle injured in collision with unspecified motor vehicles in traffic accident           |
|                            | V69.69* | Unspecified occupant of heavy transport vehicle injured in collision with other motor vehicles in traffic accident                 |
| Υ                          | V69.8   | Occupant (driver) (passenger) of heavy transport vehicle injured in other specified transport accidents                            |
|                            | V69.81* | Occupant (driver) (passenger) of heavy transport vehicle injured in transport accidents with military vehicle                      |
|                            | V69.88* | Occupant (driver) (passenger) of heavy transport vehicle injured in other specified transport accidents                            |
|                            | V69.9*  | Occupant (driver) (passenger) of heavy transport vehicle injured in unspecified traffic accident                                   |
| Υ                          | V70     | Bus occupant injured in collision with pedestrian or animal  |
|                            | V70.4*  | Person boarding or alighting from bus injured in collision with pedestrian or animal   |
|                            | V70.5*  | Driver of bus injured in collision with pedestrian or animal in traffic accident   |
|                            | V70.6*  | Passenger on bus injured in collision with pedestrian or animal in traffic accident  |
|                            | V70.7*  | Person on outside of bus injured in collision with pedestrian or animal in traffic accident  |
|                            | V70.9*  | Unspecified occupant of bus injured in collision with pedestrian or animal in traffic accident                                     |
| Υ                          | V71     | Bus occupant injured in collision with pedal cycle   |
|                            | V71.4*  | Person boarding or alighting from bus injured in collision with pedal cycle  |
|                            | V71.5*  | Driver of bus injured in collision with pedal cycle in traffic accident  |
|                            | V71.6*  | Passenger on bus injured in collision with pedal cycle in traffic accident   |
|                            | V71.7*  | Person on outside of bus injured in collision with pedal cycle in traffic accident   |
|                            | V71.9*  | Unspecified occupant of bus injured in collision with pedal cycle in traffic accident  |
| Υ                          | V72     | Bus occupant injured in collision with two- or three-wheeled motor vehicle   |
|                            | V72.4*  | Person boarding or alighting from bus injured in collision with two- or three-<br>wheeled motor vehicle                            |

| Added by<br>NEMSIS  |        |   |
|---------------------|--------|---|
| (see<br>Discussion) | Code   | Description   |
| Discussion          | V72.5* | Driver of bus injured in collision with two- or three-wheeled motor vehicle in traffic accident               |
|                     | V72.6* | Passenger on bus injured in collision with two- or three-wheeled motor vehicle in traffic accident            |
|                     | V72.7* | Person on outside of bus injured in collision with two- or three-wheeled motor vehicle in traffic accident    |
|                     | V72.9* | Unspecified occupant of bus injured in collision with two- or three-wheeled motor vehicle in traffic accident |
| Υ                   | V73    | Bus occupant injured in collision with car, pick-up truck or van  |
|                     | V73.4* | Person boarding or alighting from bus injured in collision with car, pick-up truck or van                     |
|                     | V73.5* | Driver of bus injured in collision with car, pick-up truck or van in traffic accident                         |
|                     | V73.6* | Passenger on bus injured in collision with car, pick-up truck or van in traffic accident                      |
|                     | V73.7* | Person on outside of bus injured in collision with car, pick-up truck or van in traffic accident              |
|                     | V73.9* | Unspecified occupant of bus injured in collision with car, pick-up truck or van in traffic accident           |
| Υ                   | V74    | Bus occupant injured in collision with heavy transport vehicle or bus   |
|                     | V74.4* | Person boarding or alighting from bus injured in collision with heavy transport vehicle or bus                |
|                     | V74.5* | Driver of bus injured in collision with heavy transport vehicle or bus in traffic accident                    |
|                     | V74.6* | Passenger on bus injured in collision with heavy transport vehicle or bus in traffic accident                 |
|                     | V74.7* | Person on outside of bus injured in collision with heavy transport vehicle or bus in traffic accident         |
|                     | V74.9* | Unspecified occupant of bus injured in collision with heavy transport vehicle or bus in traffic accident      |
| Y                   | V75    | Bus occupant injured in collision with railway train or railway vehicle                                       |
|                     | V75.4* | Person boarding or alighting from bus injured in collision with railway train or railway vehicle              |
|                     | V75.5* | Driver of bus injured in collision with railway train or railway vehicle in traffic accident                  |
|                     | V75.6* | Passenger on bus injured in collision with railway train or railway vehicle in traffic accident               |
|                     | V75.7* | Person on outside of bus injured in collision with railway train or railway vehicle in traffic accident       |
|                     | V75.9* | Unspecified occupant of bus injured in collision with railway train or railway vehicle in traffic accident    |
| Υ                   | V76    | Bus occupant injured in collision with other nonmotor vehicle   |

Added by **NEMSIS** (see Discussion) Code Description V76.4\* Person boarding or alighting from bus injured in collision with other nonmotor vehicle V76.5\* Driver of bus injured in collision with other nonmotor vehicle in traffic accident V76.6\* Passenger on bus injured in collision with other nonmotor vehicle in traffic accident V76.7\* Person on outside of bus injured in collision with other nonmotor vehicle in traffic accident V76.9\* Unspecified occupant of bus injured in collision with other nonmotor vehicle in traffic accident Υ V77 Bus occupant injured in collision with fixed or stationary object V77.4\* Person boarding or alighting from bus injured in collision with fixed or stationary object V77.5\* Driver of bus injured in collision with fixed or stationary object in traffic accident V77.6\* Passenger on bus injured in collision with fixed or stationary object in traffic accident V77.7\* Person on outside of bus injured in collision with fixed or stationary object in traffic accident V77.9\* Unspecified occupant of bus injured in collision with fixed or stationary object in traffic accident Υ V78 Bus occupant injured in noncollision transport accident V78.4\* Person boarding or alighting from bus injured in noncollision transport accident V78.5\* Driver of bus injured in noncollision transport accident in traffic accident V78.6\* Passenger on bus injured in noncollision transport accident in traffic accident V78.7\* Person on outside of bus injured in noncollision transport accident in traffic accident V78.9\* Unspecified occupant of bus injured in noncollision transport accident in traffic accident Υ V79 Bus occupant injured in other and unspecified transport accidents Υ V79.4 Driver of bus injured in collision with other and unspecified motor vehicles in traffic accident V79.40\* Driver of bus injured in collision with unspecified motor vehicles in traffic accident V79.49\* Driver of bus injured in collision with other motor vehicles in traffic accident Υ V79.5 Passenger on bus injured in collision with other and unspecified motor vehicles in traffic accident V79.50\* Passenger on bus injured in collision with unspecified motor vehicles in traffic accident V79.59\* Passenger on bus injured in collision with other motor vehicles in traffic accident

| Added by    |         |   |
|-------------|---------|---|
| NEMSIS      |         |   |
| (see        |         |   |
| Discussion) | Code    | Description   |
| Υ           | V79.6   | Unspecified bus occupant injured in collision with other and unspecified                          |
|             |         | motor vehicles in traffic accident  |
|             | V79.60* | Unspecified bus occupant injured in collision with unspecified motor vehicles in traffic accident |
|             | V79.69* | Unspecified bus occupant injured in collision with other motor vehicles in traffic accident       |
| Υ           | V79.8   | Bus occupant (driver) (passenger) injured in other specified transport accidents                  |
|             | V79.81* | Bus occupant (driver) (passenger) injured in transport accidents with military vehicle            |
|             | V79.88* | Bus occupant (driver) (passenger) injured in other specified transport accidents                  |
|             | V79.9*  | Bus occupant (driver) (passenger) injured in unspecified traffic accident                         |
|             | V83.0*  | Driver of special industrial vehicle injured in traffic accident                                  |
|             | V83.1*  | Passenger of special industrial vehicle injured in traffic accident                               |
|             | V83.2*  | Person on outside of special industrial vehicle injured in traffic accident                       |
|             | V83.3*  | Unspecified occupant of special industrial vehicle injured in traffic accident                    |
|             | V84.0*  | Driver of special agricultural vehicle injured in traffic accident                                |
|             | V84.1*  | Passenger of special agricultural vehicle injured in traffic accident                             |
|             | V84.2*  | Person on outside of special agricultural vehicle injured in traffic accident                     |
|             | V84.3*  | Unspecified occupant of special agricultural vehicle injured in traffic accident                  |
|             | V85.0*  | Driver of special construction vehicle injured in traffic accident                                |
|             | V85.1*  | Passenger of special construction vehicle injured in traffic accident                             |
|             | V85.2*  | Person on outside of special construction vehicle injured in traffic accident                     |
|             | V85.3*  | Unspecified occupant of special construction vehicle injured in traffic accident                  |
| Υ           | V86     | Occupant of special all-terrain or other off-road motor vehicle, injured in transport accident    |
| Υ           | V86.0   | Driver of special all-terrain or other off-road motor vehicle injured in traffic accident         |
|             | V86.01* | Driver of ambulance or fire engine injured in traffic accident                                    |
|             | V86.02* | Driver of snowmobile injured in traffic accident  |
|             | V86.03* | Driver of dune buggy injured in traffic accident  |
|             | V86.04* | Driver of military vehicle injured in traffic accident  |
|             | V86.05* | Driver of 3- or 4- wheeled ATV injured in traffic accident  |
|             | V86.06* | Driver of dirt bike or motor/cross bike injured in traffic accident                               |
|             | V86.09* | Driver of other special all-terrain or other off-road motor vehicle injured in traffic accident   |
| Υ           | V86.1   | Passenger of special all-terrain or other off-road motor vehicle injured in traffic accident      |
|             | V86.11* | Passenger of ambulance or fire engine injured in traffic accident                                 |
|             | V86.11* | Passenger of snowmobile injured in traffic accident   |
|             |         | . assenge. Statistically injured in training decident   |

Added by **NEMSIS** *(see* Discussion) Code Description Passenger of dune buggy injured in traffic accident V86.13\* V86.14\* Passenger of military vehicle injured in traffic accident V86.15\* Passenger of 3- or 4- wheeled ATV injured in traffic accident V86.16\* Passenger of dirt bike or motor/cross bike injured in traffic accident V86.19\* Passenger of other special all-terrain or other off-road motor vehicle injured in traffic accident Υ V86.2 Person on outside of special all-terrain or other off-road motor vehicle injured in traffic accident V86.21\* Person on outside of ambulance or fire engine injured in traffic accident V86.22\* Person on outside of snowmobile injured in traffic accident V86.23\* Person on outside of dune buggy injured in traffic accident V86.24\* Person on outside of military vehicle injured in traffic accident V86.25\* Person on outside of 3- or 4-wheeled ATV injured in traffic accident V86.26\* Person on outside of dirt bike or motor/cross bike injured in traffic accident V86.29\* Person on outside of other special all-terrain or other off-road motor vehicle injured in traffic accident Υ V86.3 Unspecified occupant of special all-terrain or other off-road motor vehicle injured in traffic accident V86.31\* Unspecified occupant of ambulance or fire engine injured in traffic accident V86.32\* Unspecified occupant of snowmobile injured in traffic accident V86.33\* Unspecified occupant of dune buggy injured in traffic accident V86.34\* Unspecified occupant of military vehicle injured in traffic accident V86.35\* Unspecified occupant of 3- or 4- wheeled ATV injured in traffic accident V86.36\* Unspecified occupant of dirt bike or motor/cross bike injured in traffic accident V86.39\* Unspecified occupant of other special all-terrain or other off-road motor vehicle injured in traffic accident Υ V87 Traffic accident of specified type but victim's mode of transport unknown V87.0\* Person injured in collision between car and two- or three-wheeled powered vehicle (traffic) V87.1\* Person injured in collision between other motor vehicle and two- or threewheeled motor vehicle (traffic) V87.2\* Person injured in collision between car and pick-up truck or van (traffic) V87.3\* Person injured in collision between car and bus (traffic) V87.4\* Person injured in collision between car and heavy transport vehicle (traffic) V87.5\* Person injured in collision between heavy transport vehicle and bus (traffic) V87.6\* Person injured in collision between railway train or railway vehicle and car V87.7\* Person injured in collision between other specified motor vehicles (traffic) V87.8\* Person injured in other specified noncollision transport accidents involving motor vehicle (traffic) V89.2\* Person injured in unspecified motor-vehicle accident, traffic

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Added by
NEMSIS
(see
Discussion)
             Code
                         Description
             X82
                         Intentional self-harm by crashing of motor vehicle
             X82.0*
                         Intentional collision of motor vehicle with other motor vehicle
             X82.1*
                         Intentional collision of motor vehicle with train
             X82.2*
                         Intentional collision of motor vehicle with tree
             X82.8*
                         Other intentional self-harm by crashing of motor vehicle
             Y02.0*
                         Assault by pushing or placing victim in front of motor vehicle
             Y03.0*
                         Assault by being hit or run over by motor vehicle
             Y03.8*
                         Other assault by crashing of motor vehicle
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#### **XPath Code**

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      (V31\.9.*)|(V32\.4.*)|(V32\.5.*)|(V32\.6.*)|(V32\.7.*)|(V32\.9.*)|(V33)|
      (V33\.4.*)|(V33\.5.*)|(V33\.6.*)|(V33\.7.*)|(V33\.9.*)|(V34)|(V34\.4.*)|
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      (V35\.6.*)|(V35\.7.*)|(V35\.9.*)|(V36\|(V36\.4.*)|(V36\.5.*)|(V36\.6.*)|
      (V36\.7.*)|(V36\.9.*)|(V37)|(V37\.4.*)|(V37\.5.*)|(V37\.6.*)|(V37\.7.*)|
      (V37\.9.*)|(V38\)|(V38\.4.*)|(V38\.5.*)|(V38\.6.*)|(V38\.7.*)|(V38\.9.*)|
      (V39\.4)|(V39\.40.*)|(V39\.49.*)|(V39\.5)|(V39\.50.*)|(V39\.59.*)|(V39\.6)|
      (V39\.60.*)|(V39\.69.*)|(V39\.8)|(V39\.81.*)|(V39\.89.*)|(V39\.9.*)|(V40)|
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      (V43\.43.*)|(V43\.44.*)|(V43\.5)|(V43\.51.*)|(V43\.52.*)|(V43\.53.*)|
      (V43\.54.*)|(V43\.6)|(V43\.61.*)|(V43\.62.*)|(V43\.63.*)|(V43\.64.*)|(V43\.7)|
      (V43\.71.*)|(V43\.72.*)|(V43\.73.*)|(V43\.74.*)|(V43\.9)|(V43\.91.*)|
      (V43\.92.*)|(V43\.93.*)|(V43\.94.*)|(V44)|(V44\.4.*)|(V44\.5.*)|(V44\.6.*)|
      (V44\.7.*)|(V44\.9.*)|(V45\)|(V45\.4.*)|(V45\.5.*)|(V45\.6.*)|(V45\.7.*)|
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      (V47 \setminus .4.*) | (V47 \setminus .5.*) | (V47 \setminus .51.*) | (V47 \setminus .52.*) | (V47 \setminus .6.*) | (V47 \setminus .6.*) |
      (V47\.62.*)|(V47\.7.*)|(V47\.9.*)|(V47\.91.*)|(V47\.92.*)|(V48\.4.*)|
      (V48\.5.*)|(V48\.6.*)|(V48\.7.*)|(V48\.9.*)|(V49\.40.*)|(V49\.40.*)|
      (V49\.5)|(V49\.50.*)|(V49\.59.*)|(V49\.6)|(V49\.60.*)|(V49\.69.*)|(V49\.8)|
      (V49\.81.*)|(V49\.88.*)|(V49\.9.*)|(V50)|(V50\.4.*)|(V50\.5.*)|(V50\.6.*)|
      (V50\.7.*)|(V50\.9.*)|(V51)|(V51\.4.*)|(V51\.5.*)|(V51\.6.*)|(V51\.7.*)|
      (V51\.9.*)|(V52\.4.*)|(V52\.5.*)|(V52\.6.*)|(V52\.7.*)|(V52\.9.*)|(V53)|
      (V53\.4.*)|(V53\.5.*)|(V53\.6.*)|(V53\.7.*)|(V53\.9.*)|(V54)|(V54\.4.*)|
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(V54\.5.*)|(V54\.6.*)|(V54\.7.*)|(V54\.9.*)|(V55)|(V55\.4.*)|(V55\.5.*)|
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     (V56\.7.*)|(V56\.9.*)|(V57\)|(V57\.4.*)|(V57\.5.*)|(V57\.6.*)|(V57\.7.*)|
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     (V60 \setminus .4.*) | (V60 \setminus .5.*) | (V60 \setminus .6.*) | (V60 \setminus .7.*) | (V60 \setminus .9.*) | (V61) | (V61 \setminus .4.*) |
    (V61\.5.*)|(V61\.6.*)|(V61\.7.*)|(V61\.9.*)|(V62\.4.*)|(V62\.5.*)|
     (V62\.6.*)|(V62\.7.*)|(V62\.9.*)|(V63\.4.*)|(V63\.5.*)|(V63\.6.*)|
     (V63\.7.*)|(V63\.9.*)|(V64)|(V64\.4.*)|(V64\.5.*)|(V64\.6.*)|(V64\.7.*)|
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     (V66 \setminus .4.*) | (V66 \setminus .5.*) | (V66 \setminus .6.*) | (V66 \setminus .7.*) | (V66 \setminus .9.*) | (V67) | (V67 \setminus .4.*) |
     (V67\.5.*)|(V67\.6.*)|(V67\.7.*)|(V67\.9.*)|(V68)|(V68\.4.*)|(V68\.5.*)|
     (V68\.6.*)|(V68\.7.*)|(V68\.9.*)|(V69\.4)|(V69\.40.*)|(V69\.40.*)|
     (V69\.5)|(V69\.50.*)|(V69\.59.*)|(V69\.6)|(V69\.60.*)|(V69\.69.*)|(V69\.8)|
     (V69\.81.*)|(V69\.88.*)|(V69\.9.*)|(V70)|(V70\.4.*)|(V70\.5.*)|(V70\.6.*)|
     (V70\.7.*)|(V70\.9.*)|(V71)|(V71\.4.*)|(V71\.5.*)|(V71\.6.*)|(V71\.7.*)|
    (V71\.9.*)|(V72\.4.*)|(V72\.5.*)|(V72\.6.*)|(V72\.7.*)|(V72\.9.*)|(V73)|
    (V73 \setminus .4.*) | (V73 \setminus .5.*) | (V73 \setminus .6.*) | (V73 \setminus .7.*) | (V73 \setminus .9.*) | (V74) | (V74 \setminus .4.*) |
     (V74\.5.*)|(V74\.6.*)|(V74\.7.*)|(V74\.9.*)|(V75)|(V75\.4.*)|(V75\.5.*)|
     (V75 \setminus .6.*) | (V75 \setminus .7.*) | (V75 \setminus .9.*) | (V76 \setminus .4.*) | (V76 \setminus .5.*) | (V76 \setminus .6.*) |
     (V76\.7.*)|(V76\.9.*)|(V77)|(V77\.4.*)|(V77\.5.*)|(V77\.6.*)|(V77\.7.*)|
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    (V79\.60.*)|(V79\.69.*)|(V79\.81.*)|(V79\.88.*)|(V79\.9.*)|(V83\.0.*)|
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    (V86\.02.*)|(V86\.03.*)|(V86\.04.*)|(V86\.05.*)|(V86\.06.*)|(V86\.09.*)|
     (V86\.1)|(V86\.11.*)|(V86\.12.*)|(V86\.13.*)|(V86\.14.*)|(V86\.15.*)|
     (V86\.16.*)|(V86\.19.*)|(V86\.2)|(V86\.21.*)|(V86\.22.*)|(V86\.23.*)|
     (V86\.24.*)|(V86\.25.*)|(V86\.26.*)|(V86\.29.*)|(V86\.3)|(V86\.31.*)|
     (V86\.32.*)|(V86\.33.*)|(V86\.34.*)|V86\.35.*)|(V86\.36.*)|(V86\.39.*)|(V87)|
     (V87 \setminus .0.*) | (V87 \setminus .1.*) | (V87 \setminus .2.*) | (V87 \setminus .3.*) | (V87 \setminus .4.*) | (V87 \setminus .5.*) | (V87 \setminus .6.*) |
     (V87 \setminus .7.*) | (V87 \setminus .8.*) | (V89 \setminus .2.*) | (X82 \setminus .0.*) | (X82 \setminus .1.*) | (X82 \setminus .2.*) |
     (X82 \.8.*) | (Y02 \.0.*) | (Y03 \.0.*) | (Y03 \.8.*)$')]
]
```

#### **SAS Code**

```
proc sql;
  create table MotorVehicleCrashCarTruckBusKey as
  select distinct pcrKey from
  (
    select pcrKey from memsis.factPcrCauseOfInjury where prxmatch('/^(V30))
```

```
(V30 \cdot 4.*) | (V30 \cdot 5.*) | (V30 \cdot 6.*) | (V30 \cdot 7.*) | (V30 \cdot 9.*) | (V31) | (V31 \cdot 4.*) |
(V31\.5.*)|(V31\.6.*)|(V31\.7.*)|(V31\.9.*)|(V32\.4.*)|(V32\.5.*)|
(V32\.6.*)|(V32\.7.*)|(V32\.9.*)|(V33)|(V33\.4.*)|(V33\.5.*)|(V33\.6.*)|
(V33\.7.*)|(V33\.9.*)|(V34)|(V34\.4.*)|(V34\.5.*)|(V34\.6.*)|(V34\.7.*)|
(V34\.9.*)|(V35)|(V35\.4.*)|(V35\.5.*)|(V35\.6.*)|(V35\.7.*)|(V35\.9.*)|
(V36)|(V36 \setminus 4.*)|(V36 \setminus 5.*)|(V36 \setminus 6.*)|(V36 \setminus 7.*)|(V36 \setminus 9.*)|(V37)|
(V37 \setminus .4.*) | (V37 \setminus .5.*) | (V37 \setminus .6.*) | (V37 \setminus .7.*) | (V37 \setminus .9.*) | (V38 \setminus .4.*) |
(V38\.5.*)|(V38\.6.*)|(V38\.7.*)|(V38\.9.*)|(V39\.4)|(V39\.40.*)|(V39\.49.*)|
(V39\.5)|(V39\.50.*)|(V39\.59.*)|(V39\.6)|(V39\.60.*)|(V39\.60.*)|(V39\.8)|
(V39\.81.*)|(V39\.89.*)|(V39\.9.*)|(V40\.4.*)|(V40\.5.*)|(V40\.6.*)|
(V40 \setminus .7.*) | (V40 \setminus .9.*) | (V41) | (V41 \setminus .4.*) | (V41 \setminus .5.*) | (V41 \setminus .6.*) | (V41 \setminus .7.*) |
(V41\.9.*)|(V42)|(V42\.4.*)|(V42\.5.*)|(V42\.6.*)|(V42\.7.*)|(V42\.9.*)|
(V43)|(V43\.4)|(V43\.41.*)|(V43\.42.*)|(V43\.43.*)|(V43\.44.*)|(V43\.5)|
(V43\.51.*)|(V43\.52.*)|(V43\.53.*)|(V43\.54.*)|(V43\.6)|(V43\.61.*)|
(V43\.62.*)|(V43\.63.*)|(V43\.64.*)|(V43\.7)|(V43\.71.*)|(V43\.72.*)|
(V43\.73.*)|(V43\.74.*)|(V43\.9)|(V43\.91.*)|(V43\.92.*)|(V43\.93.*)|
(V43\.94.*)|(V44\)|(V44\.4.*)|(V44\.5.*)|(V44\.6.*)|(V44\.7.*)|(V44\.9.*)|
(V45)|(V45\.4.*)|(V45\.5.*)|(V45\.6.*)|(V45\.7.*)|(V45\.9.*)|(V46)|
(V46\.4.*)|(V46\.5.*)|(V46\.6.*)|(V46\.7.*)|(V46\.9.*)|(V47\.4.*)|
(V47\.5.*)|(V47\.51.*)|(V47\.52.*)|(V47\.6.*)|(V47\.61.*)|(V47\.62.*)|
(V47\.7.*)|(V47\.9.*)|(V47\.91.*)|(V47\.92.*)|(V48\.4.*)|(V48\.5.*)|
(V48\.6.*)|(V48\.7.*)|(V48\.9.*)|(V49\.40.*)|(V49\.40.*)|(V49\.5)|
(V49\.50.*)|(V49\.59.*)|(V49\.6)|(V49\.60.*)|(V49\.69.*)|(V49\.8)|
(V49\.81.*)|(V49\.88.*)|(V49\.9.*)|(V50\.4.*)|(V50\.5.*)|(V50\.6.*)|
(V50\.7.*)|(V50\.9.*)|(V51)|(V51\.4.*)|(V51\.5.*)|(V51\.6.*)|(V51\.7.*)|
(V51\.9.*)|(V52)|(V52\.4.*)|(V52\.5.*)|(V52\.6.*)|(V52\.7.*)|(V52\.9.*)|
(V53)|(V53\.4.*)|(V53\.5.*)|(V53\.6.*)|(V53\.7.*)|(V53\.9.*)|(V54)|
(V54\.4.*)|(V54\.5.*)|(V54\.6.*)|(V54\.7.*)|(V54\.9.*)|(V55)|(V55\.4.*)|
(V55\.5.*)|(V55\.6.*)|(V55\.7.*)|(V55\.9.*)|(V56)|(V56\.4.*)|(V56\.5.*)|
(V56\.6.*)|(V56\.7.*)|(V56\.9.*)|(V57\|(V57\.4.*)|(V57\.5.*)|(V57\.6.*)|
(V57\.7.*)|(V57\.9.*)|(V58\)|(V58\.4.*)|(V58\.5.*)|(V58\.6.*)|(V58\.7.*)|
(V58\.9.*)|(V59\.4)|(V59\.40.*)|(V59\.49.*)|(V59\.5)|(V59\.50.*)|
(V59\.59.*)|(V59\.6)|(V59\.60.*)|(V59\.69.*)|(V59\.8)|(V59\.81.*)|
(V59\.88.*)|(V59\.9.*)|(V60)|(V60\.4.*)|(V60\.5.*)|(V60\.6.*)|(V60\.7.*)|
(V60\.9.*)|(V61)|(V61\.4.*)|(V61\.5.*)|(V61\.6.*)|(V61\.7.*)|(V61\.9.*)|
(V62)|(V62 \cdot 4.*)|(V62 \cdot 5.*)|(V62 \cdot 6.*)|(V62 \cdot 7.*)|(V62 \cdot 9.*)|(V63)|
(V63\.4.*)|(V63\.5.*)|(V63\.6.*)|(V63\.7.*)|(V63\.9.*)|(V64\|(V64\.4.*)|
(V64\.5.*)|(V64\.6.*)|(V64\.7.*)|(V64\.9.*)|(V65)|(V65\.4.*)|(V65\.5.*)|
(V65\.6.*)|(V65\.7.*)|(V65\.9.*)|(V66\|(V66\.4.*)|(V66\.5.*)|(V66\.6.*)|
(V66\.7.*)|(V66\.9.*)|(V67\)|(V67\.4.*)|(V67\.5.*)|(V67\.6.*)|(V67\.7.*)|
(V67\.9.*)|(V68\.4.*)|(V68\.5.*)|(V68\.6.*)|(V68\.7.*)|(V68\.9.*)|
(V69)|(V69\.4)|(V69\.40.*)|(V69\.49.*)|(V69\.5)|(V69\.50.*)|(V69\.59.*)|
(V69\.6)|(V69\.60.*)|(V69\.69.*)|(V69\.8)|(V69\.81.*)|(V69\.88.*)|(V69\.9.*)|
(V70)|(V70 \setminus .4.*)|(V70 \setminus .5.*)|(V70 \setminus .6.*)|(V70 \setminus .7.*)|(V70 \setminus .9.*)|(V71)|
(V71\.4.*)|(V71\.5.*)|(V71\.6.*)|(V71\.7.*)|(V71\.9.*)|(V72)|(V72\.4.*)|
```

```
(V72\.5.*)|(V72\.6.*)|(V72\.7.*)|(V72\.9.*)|(V73)|(V73\.4.*)|(V73\.5.*)|
         (V73\.6.*)|(V73\.7.*)|(V73\.9.*)|(V74\|(V74\.4.*)|(V74\.5.*)|(V74\.6.*)|
         (V74\.7.*)|(V74\.9.*)|(V75)|(V75\.4.*)|(V75\.5.*)|(V75\.6.*)|(V75\.7.*)|
         (V75 \setminus .9.*) | (V76) | (V76 \setminus .4.*) | (V76 \setminus .5.*) | (V76 \setminus .6.*) | (V76 \setminus .7.*) | (V76 \setminus .9.*) |
         (V77)|(V77 \setminus .4.*)|(V77 \setminus .5.*)|(V77 \setminus .6.*)|(V77 \setminus .7.*)|(V77 \setminus .9.*)|(V78)|
         (V78\.4.*)|(V78\.5.*)|(V78\.6.*)|(V78\.7.*)|(V78\.9.*)|(V79)|(V79\.4)|
         (V79\.40.*)|(V79\.49.*)|(V79\.5)|(V79\.50.*)|(V79\.59.*)|(V79\.6)|
         (V79\.60.*)|(V79\.69.*)|(V79\.8)|(V79\.81.*)|(V79\.88.*)|(V79\.9.*)|
         (V83\.0.*)|(V83\.1.*)|(V83\.2.*)|(V83\.3.*)|(V84\.0.*)|(V84\.1.*)|
         (V84\.2.*)|(V84\.3.*)|(V85\.0.*)|(V85\.1.*)|(V85\.2.*)|(V85\.3.*)|(V86)|
         (V86\.0)|(V86\.01.*)|(V86\.02.*)|(V86\.03.*)|(V86\.04.*)|(V86\.05.*)|
         (V86\.06.*)|(V86\.09.*)|(V86\.1)|(V86\.11.*)|(V86\.12.*)|(V86\.13.*)|
         (V86\.14.*)|(V86\.15.*)|(V86\.16.*)|(V86\.19.*)|(V86\.2)|(V86\.21.*)|
         (V86\.22.*)|(V86\.23.*)|(V86\.24.*)|(V86\.25.*)|(V86\.26.*)|(V86\.29.*)|
         (V86\.3)|(V86\.31.*)|(V86\.32.*)|(V86\.33.*)|(V86\.34.*)|(V86\.35.*)|
         (V86\.36.*)|(V86\.39.*)|(V87\.0.*)|(V87\.1.*)|(V87\.2.*)|(V87\.3.*)|
         (V87 \cdot 4.*) | (V87 \cdot 5.*) | (V87 \cdot 6.*) | (V87 \cdot 7.*) | (V87 \cdot 8.*) | (V89 \cdot 2.*) | (X82) |
         (X82\.0.*)|(X82\.1.*)|(X82\.2.*)|(X82\.8.*)|(Y02\.0.*)|(Y03\.0.*)|
         (Y03\.8.*)$/', eInjury_01)
    )
  ;
quit;
```

#### **Discussion**

For all "crash" case definitions, the following apply:

The ANSI D.16-2017 Manual on Classification of Motor Vehicle Traffic Crashes glossary, "Characteristics of Motor Vehicle Traffic Crashes," was consulted in the development of the motor vehicle crash case definitions, with differences noted below. (Text in *italics* is quoted from ANSI D.16-2017.)

Motor vehicle traffic crashes have a number of characteristics that are used to distinguish between motor vehicle traffic crashes and other events such as noncrashes, aircraft or railway accidents and other motor vehicles, cataclysms, and nontraffic crashes. The questions below address all the distinguishing characteristics of motor vehicle traffic crashes. If the answer to each of the questions below is "yes," then the incident is a motor vehicle traffic crash.

- 1. Did the incident include one or more occurrences of injury (2.3.1) or damage (2.3.7)?
  - It is assumed that injury occurred, since we are looking at elnjury.01 Cause of Injury. Damage-only crashes are out of scope from a NEMSIS perspective.
- 2. Was there at least one occurrence of injury or damage which was not a direct result of a cataclysm (2.4.5 Cataclysm and 2.4.9 Transport crash)?
  - This information is unlikely to be reliably available in NEMSIS data.
- 3. Did the incident involve one or more motor vehicles (2.2.7)?

- Cases that are specifically reported as not including a motor vehicle are excluded.
  However, sometimes EMS uses more generic ICD-10-CM codes that do not indicate
  whether a motor vehicle was involved. The case definitions for pedestrian crash and
  bicycle crash may include cases that did not specify whether a motor vehicle was
  involved.
- 4. Of the motor vehicles involved, was at least one in-transport (2.2.34)?
  - This information is unavailable in the NEMSIS data.
- 5. Was the incident an unstabilized situation (2.4.4)?
  - This information is unavailable in the NEMSIS data.
- 6. Did the unstabilized situation originate on a trafficway (2.2.1) or did injury or damage occur on a trafficway?
  - Cases that are specifically reported as "non-traffic" are excluded. However, sometimes
    EMS uses more generic ICD-10-CM codes that do not indicate whether a crash was
    "traffic" or "non-traffic." The case definitions may include cases that did not specify
    whether a crash was "traffic" or "non-traffic."
  - The terms "traffic" and "non-traffic" are not further defined in ICD-10-CM. EMS may not interpret the terms in the same way as ANSI D.16-2017.
- 7. If the incident involved a railway train (2.2.5) in-transport, did a motor vehicle in-transport become involved prior to any injury or damage involving the train?
  - The case definitions may include cases where a train was involved in the primary crash event.
- 8. Is it true that neither an aircraft (2.1.5) in-transport nor a watercraft (2.1.6) in-transport was involved in the incident?
  - The case definitions may include cases where an aircraft or watercraft was involved, but not cases where the patient was an aircraft or watercraft occupant.

The intent of the "crash" case definitions is to cast a wide net. Users of the case definitions may choose to narrow the criteria for their specific purposes. For example,

- To identify fatal crashes in a manner similar to the Fatality Analysis Reporting System, the case definition could be narrowed to only include patients who died during the EMS call. However, this would exclude patients who survived to the hospital and died later because of the crash.
- To identify traffic crashes more strictly, the case definition could be narrowed to only include ICD-10 codes labeled as "traffic". However, this would exclude records where the report did not specify whether the crash was traffic or non-traffic. Also, it is unlikely that EMS providers are highly trained on the differences between "traffic" and "non-traffic".
- To identify only those crashes involving motor vehicles more strictly, the case definitions for
  pedestrian and bicycle crashes could be narrowed to only include records where the ICD-10
  code indicates that a motor vehicle was involved. However, this would exclude records where
  the report did not specify whether a motor vehicle was involved.

The ICD-10-CM codes selected for the case definitions for crashes are based on the lists provided in the CDC NCHS 2020 ICD-10-CM External Cause of Injury Matrix for Causes other than Poisoning. The NEMSIS case definitions for crashes implement the criteria in the CDC ICD-10 matrix, with the following exceptions and refinements:

- The NEMSIS case definitions do not distinguish between accidental, self-harm, assault, undetermined intent, and legal intervention/war operations. Applicable codes from all intent categories are included in the NEMSIS case definitions.
- NEMSIS data sometimes includes non-billable ICD-10-CM codes. The NEMSIS case definitions
  account for the non-billable codes and include the ones that would be consistent with the intent
  of the CDC criteria.

The CDC Injury Matrix label for this case definition is "MVT- Occupant".

## References

ANSI D.16-2017 Manual on Classification of Motor Vehicle Traffic Crashes. transportation.gov/sites/dot.gov/files/docs/resources/government/traffic-records/304331/ansid16-2017.pdf.

*ICD Injury Matrices*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC). <a href="mailto:cdc.gov/nchs/injury/injury">cdc.gov/nchs/injury/injury</a> matrices.htm.