NEMSIS V3 Case Definition

Motor Vehicle Crash—Car, Truck, or Bus

Date

August 2, 2022 (added ICD-10 code V49.4)
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:

eInjury.01 Cause of Injury:

Added by NEMSIS (see Discussion)	Code	Description
Y	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

Added by NEMSIS (see Discussion)	Code	Description
	V30.9*	Unspecified occupant of three-wheeled motor vehicle injured in collision with pedestrian or animal in traffic accident
Y	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
Y	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-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
Y	V33	Occupant of three-wheeled motor vehicle injured in collision with car, pick-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-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
Y	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

Added by NEMSIS (see Discussion)	Code	Description
	V34.6*	Passenger in three-wheeled motor vehicle injured in collision with heavy transport vehicle or bus in traffic accident
	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
Y	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
Y	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
Y	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 stationary object in traffic accident
	V37.6*	Passenger in three-wheeled motor vehicle injured in collision with fixed or 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
Y	V38	Occupant of three-wheeled motor vehicle injured in noncollision transport accident

Added by NEMSIS (see Discussion)	Code	Description
	V38.4*	Person boarding or alighting a three-wheeled motor vehicle injured in noncollision transport accident
	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
Y	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
Y	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
Y	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
Y	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
Y	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

Added by NEMSIS (see Discussion)	Code	Description
	V40.9*	Unspecified car occupant injured in collision with pedestrian or animal in traffic accident
Y	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
Y	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-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
Y	V43	Car occupant injured in collision with car, pick-up truck or van
Y	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 vehicle
	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
Y	V43.5	Car driver injured in collision with car, pick-up truck or van in traffic accident
	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
Y	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
Y	V43.7	Person on outside of car injured in collision with car, pick-up truck or van in traffic accident

Added by NEMSIS (see Discussion)	Code	Description
	V43.71*	Person on outside of car injured in collision with sport utility vehicle in traffic accident
	V43.72*	Person on outside of car injured in collision with other type car in traffic 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
Y	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
Y	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
Y	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
Y	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

Added by NEMSIS (see Discussion)	Code	Description
	V46.6*	Car passenger injured in collision with other nonmotor vehicle in traffic accident
	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
Y	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
Y	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
Y	V49	Car occupant injured in other and unspecified transport accidents
Y	V49.4	Driver injured in collision with other and unspecified motor vehicles in traffic accident
	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
Y	V49.5	Passenger injured in collision with other and unspecified motor vehicles in traffic accident

Added by NEMSIS (see Discussion)	Code	Description
	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
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
Y	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
Y	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
Y	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
Y	V52	Occupant of pick-up truck or van injured in collision with two- or three-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

Added by NEMSIS (see Discussion)	*Code*	*Description*
	V52.5*	Driver of pick-up truck or van injured in collision with two- or three-wheeled motor vehicle in traffic accident
	V52.6*	Passenger in pick-up truck or van injured in collision with two- or three-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
Y	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
Y	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 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
Y	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

Added by NEMSIS (see Discussion)	Code	Description
Y	V56	Occupant of pick-up truck or van injured in collision with other nonmotor vehicle
	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
Y	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
Y	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
Y	V59	Occupant of pick-up truck or van injured in other and unspecified transport accidents
Y	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

Added by NEMSIS (see Discussion)	Code	Description
Y	V59.5	Passenger in pick-up truck or van injured in collision with other and unspecified motor vehicles in traffic accident
	V59.50*	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
Y	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
Y	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
Y	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 animal in traffic accident
	V60.6*	Passenger in heavy transport vehicle injured in collision with pedestrian or animal in traffic accident
	V60.7*	Person on outside of heavy transport vehicle injured in collision with pedestrian or animal in traffic accident
	V60.9*	Unspecified occupant of heavy transport vehicle injured in collision with pedestrian or animal in traffic accident
Y	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

Added by NEMSIS (see Discussion)	Code	Description
Y	V62	Occupant of heavy transport vehicle injured in collision with two- or three-wheeled motor vehicle
	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 three-wheeled motor vehicle in traffic accident
	V62.6*	Passenger in heavy transport vehicle injured in collision with two- or three-wheeled 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 two- or three-wheeled motor vehicle in traffic accident
Y	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
Y	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
Y	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

Added by NEMSIS (see Discussion)	Code	Description
	V65.7*	Person on outside of heavy transport vehicle injured in collision with railway train or railway vehicle in traffic accident
	V65.9*	Unspecified occupant of heavy transport vehicle injured in collision with railway train or railway vehicle in traffic accident
Y	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
Y	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
Y	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
Y	V69	Occupant of heavy transport vehicle injured in other and unspecified transport accidents
Y	V69.4	Driver of heavy transport vehicle injured in collision with other and unspecified motor vehicles in traffic accident

	Added by NEMSIS (see Discussion)	Code	Description
		V69.40*	Driver of heavy transport vehicle injured in collision with unspecified motor vehicles in traffic accident
		V69.49*	Driver of heavy transport vehicle injured in collision with other motor vehicles in traffic accident
	Y	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
	Y	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
	Y	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
	Y	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
	Y	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
	Y	V72	Bus occupant injured in collision with two- or three-wheeled motor vehicle

Added by NEMSIS (see Discussion)	*Code*	*Description*
	V72.4*	Person boarding or alighting from bus injured in collision with two- or three-wheeled motor vehicle
	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
Y	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
Y	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

Added by NEMSIS (see Discussion)	*Code*	*Description*
Y	V76	Bus occupant injured in collision with other nonmotor vehicle
	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
Y	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
Y	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
Y	V79	Bus occupant injured in other and unspecified transport accidents
Y	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
Y	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
Y	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
Y	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
Y	V86	Occupant of special all-terrain or other off-road motor vehicle, injured in transport accident
Y	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
Y	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
	V86.12*	Passenger of snowmobile injured in traffic accident

Added by NEMSIS (see Discussion)	Code	Description
	V86.13*	Passenger of dune buggy injured in traffic accident
	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
Y	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
Y	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
Y	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 three-wheeled 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 (traffic)
	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

Added by NEMSIS (see Discussion)	Code	Description
Y	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

XPath Code

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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.*)|
      (V45\.9.*)|(V46)|(V46\.4.*)|(V46\.5.*)|(V46\.6.*)|(V46\.7.*)|(V46\.9.*)|(V47)|
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      (V49\.8)|(V49\.81.*)|(V49\.88.*)|(V49\.9.*)|(V50)|(V50\.4.*)|(V50\.5.*)|
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      (V52\.9.*)|(V53)|(V53\.4.*)|(V53\.5.*)|(V53\.6.*)|(V53\.7.*)|(V53\.9.*)|(V54)|
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    (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)|(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)|
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    (V63\.6.*)|(V63\.7.*)|(V63\.9.*)|(V64)|(V64\.4.*)|(V64\.5.*)|(V64\.6.*)|
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    (V65\.9.*)|(V66)|(V66\.4.*)|(V66\.5.*)|(V66\.6.*)|(V66\.7.*)|(V66\.9.*)|(V67)|
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    (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\.4.*)|(V70\.5.*)|
    (V70\.6.*)|(V70\.7.*)|(V70\.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)|
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    (V77\.7.*)|(V77\.9.*)|(V78)|(V78\.4.*)|(V78\.5.*)|(V78\.6.*)|(V78\.7.*)|
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    (V86\.22.*)|(V86\.23.*)|(V86\.24.*)|(V86\.25.*)|(V86\.26.*)|(V86\.29.*)|
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    (V86\.36.*)|(V86\.39.*)|(V87)|(V87\.0.*)|(V87\.1.*)|(V87\.2.*)|(V87\.3.*)|
    (V87\.4.*)|(V87\.5.*)|(V87\.6.*)|(V87\.7.*)|(V87\.8.*)|(V89\.2.*)|(X82)|
    (X82\.0.*)|(X82\.1.*)|(X82\.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)|
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(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\.4.*)|(V36\.5.*)|(V36\.6.*)|(V36\.7.*)|(V36\.9.*)|(V37)|
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(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)|
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(V47\.5.*)|(V47\.51.*)|(V47\.52.*)|(V47\.6.*)|(V47\.61.*)|(V47\.62.*)|
(V47\.7.*)|(V47\.9.*)|(V47\.91.*)|(V47\.92.*)|(V48)|(V48\.4.*)|(V48\.5.*)|
(V48\.6.*)|(V48\.7.*)|(V48\.9.*)|(V49)|(V49\.4)|(V49\.40.*)|(V49\.49.*)|
(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)|(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)|(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\.4.*)|(V62\.5.*)|(V62\.6.*)|(V62\.7.*)|(V62\.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)|(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\.4.*)|(V70\.5.*)|(V70\.6.*)|(V70\.7.*)|(V70\.9.*)|(V71)|
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        (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\.9.*)|(V76)|(V76\.4.*)|(V76\.5.*)|(V76\.6.*)|(V76\.7.*)|(V76\.9.*)|
        (V77)|(V77\.4.*)|(V77\.5.*)|(V77\.6.*)|(V77\.7.*)|(V77\.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)|(V87\.0.*)|(V87\.1.*)|(V87\.2.*)|(V87\.3.*)|
        (V87\.4.*)|(V87\.5.*)|(V87\.6.*)|(V87\.7.*)|(V87\.8.*)|(V89\.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 eInjury.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). cdc.gov/nchs/injury/injury_matrices.htm.