



Veterinary Committee on Trauma  
Updated April 2017

## **Instructions for entering data into the online database ([redcap.ahc.umn.edu](http://redcap.ahc.umn.edu))**

### General instructions:

- All Level I and II Veterinary Trauma Centers (VTCs) are required to prospectively collect information on trauma patients, beginning at patient admission.
- Although information is to be collected prospectively, verification of information using the medical record can occur retrospectively.
- Retrospective recording of data must occur within 30 days of the animal's hospital discharge, or death.
- Information can be initially recorded on the Case Report Form (CRF), but ultimately must be entered into REDCap by January 31 (cases seen through December 31), April 30 (cases seen through March 31), July 31 (cases seen through June 30) and October 31 (cases seen through September 30).
- The data collected by each VTC will be that which is available because of clinician orders or clinical indication.
- Additional funds will not be available via VetCOT to perform any additional tests.

### Data collection:

- Most data will be collected at hospital admission (within the initial 6 hours after hospital admission), although if laboratory tests or FAST exams are performed within the first 24 hours of admission, that information can also be included.
- If a test is performed more than once in a 24-hour period, then only the first result (i.e. closest to hospital admission) is the one that should be recorded in the database.
- Data recorded will be further divided into *mandatory data* (required by all VTCs) versus *optional data* (ideally included if available in the medical record). Optional data must also be captured within the initial 6 hours from hospital presentation.
- Most data will be entered into the online database using radio buttons, a drop down selection menu, or a blank text field.
- NOTE: Limit warning on continuous data point are present to minimize inadvertent or erroneous data points. If a data point outside of set limit (e.g., canine > 20 years old) is entered, a warning flag will appear; however, data points outside the limits are allowable.

Mandatory data collected upon hospital admission (within the first 6 hours):

- VTC (site) – drop down menu
- Animal information: Species – drop down menu (canine, feline); Age – text field (years to the nearest first decimal [e.g., 1.8 years = 1 year and 10 months), Breed – drop down menu or text field (if breed not listed), Sex – drop down menu (F, FS, M, MC, unknown), Body weight – text field (kg)
- Operational Canine (OpK9) – radio button (yes, no);
  - Type of work – textbox.
  - Injured during active duty or during training exercises – radio button (yes, no)
- Presentation to other DVM prior to admission – radio button (yes, no)
- Pre-hospital care provided by a non-DVM – radio button (yes, no)
  - If yes, by whom? – selections include: owner, EMT, MD, police, military personnel, firefighter, other (text box to describe)
  - Describe care administered – selections include: bandage, oxygen administration, fluid wound care, chest compressions, oral OTC – non-antibiotic, oral antibiotic, other (text box to describe)
- Type of trauma – drop down menu (blunt, penetrating, both blunt and penetrating)
- **NOTE:** environmental causes of trauma (e.g., fire/burn, porcupine quills) and feline abscesses will not be included.
- Cause of trauma – drop down menus and text boxes:
  - Blunt – drop down menu (struck by vehicle, fall from height, ejected from vehicle, injured inside vehicle, struck by weapon, non-penetrating bite wound, choking/pulling injury, unknown, injured by falling object, other) and text box (describe other)
  - Penetrating – drop down menu (bite, ballistic, impalement, laceration from knife, laceration from glass, laceration from metal, unknown, quilling, other) and text box (describe other)
  - Blunt and penetrating – drop down menu (struck by vehicle, fall from height, ejected from vehicle, injured inside vehicle, struck by weapon, crushed by falling object, bite, ballistic, impalement, laceration from knife, laceration from glass, laceration from metal, other) and text box (describe other)
- Date/time of trauma – DD:MM:YYYY / HH:MM (am or pm); or unknown
- Date/time of hospital admission – DD:MM:YYYY / HH:MM (am or pm)
  - If time not known, radio button for 8A-4P, 4P-12A and 12A-8A populated so time from injury to presentation and presentation to outcome can be determined.
- Admitted to hospital due to severity of injuries – radio button (yes/no)
 

*The goal here is to identify cases with injuries that required further in-hospital care (answer “Y”) vs. admitted for logistics, e.g., pending bloodwork, consult, owner availability to pick up, etc. (answer “N”)*
- Modified Glasgow Coma Scale score (1-6) – radio buttons
  - List each category score (MCGS score will automatically be calculated).
  - If unable to determine radio button, reason unattainable is entered.
  - See *Figure 1* for scoring system details.
  - Evidence of head injury – radio button (yes, no)
  - Evidence of spinal trauma – radio button (yes, no)
- Animal Trauma Triage score (0-3) – radio buttons
  - List each category score (ATT score will be automatically calculated).
  - See *Figure 2* for scoring system details.

**Mandatory data to be collected from the entire hospitalization period:**

- Surgical procedure(s) performed – radio button (yes/no)
  - If yes, select all that apply – possible selections: ER, OR, other veterinary clinic
- Blood product(s) administered – radio button (yes/no)
  - Type of blood product(s) administered – radio button (yes/no) for plasma, whole blood, packed red blood cells, platelet product, lyophilized albumin, other; text field (describe other)
- Mechanical ventilation provided – radio button (yes/no)
  - Time on ventilator: < 1 hour, 1-6 hours, 6-12 hours, 12-24 hours, 24-48 hours, > 48 hours
- Outcome – (survived to hospital discharge/died/euthanized)
  - If survived to discharge, document where (Home, primary DVM, other specialty hospital, AMA, other)
  - If euthanized or died, necropsy (radio button yes/no)
- Reason for euthanasia – (grave prognosis/financial limitation/both grave prognosis and financial limitation/not applicable)

**Optional data to be collected within the first 6 hours after hospital admission (if available):**

- AFAST exam performed – radio button (yes, no); if yes, abdominal fluid score – radio buttons (0, 1, 2, 3, 4)
- TFAST exam performed – radio button (yes, no); if yes, pleural effusion identified – radio button (yes, no) and loss of glide sign – radio button (yes, no)
- Blood lactate (mmol/L) – text field (value)
- Base excess (mmol/L) – text field (value)
- Ionized calcium (mmol/L) – text field (value)
- Packed cell volume (%) – text field (value)
- Total solids (g/dL) – text field (value)
- Blood glucose (g/dL) – text field (value)

**Table 1** – Modified Glasgow Coma Scale (MCGS) (Platt SR, Radaelli ST, McDonnell JJ. *J Vet Intern Med* 2001; 15:581-584).

<b>Table 1. Modified Glasgow Coma Scale</b>	
	<b>Score</b>
<b>Motor activity</b>	
Normal gait, normal spinal reflexes	6
Hemiparesis, tetraparesis, or decerebrate activity	5
Recumbent, intermittent extensor rigidity	4
Recumbent, constant extensor rigidity	3
Recumbent, constant extensor rigidity with opisthotonus	2
Recumbent, hypotonia of muscles, depressed or absent spinal reflexes	1
<b>Brain stem reflexes</b>	
Normal pupillary light reflexes and oculocephalic reflexes	6
Slow pupillary light reflexes and normal to reduced oculocephalic reflexes	5
Bilateral unresponsive miosis with normal to reduced oculocephalic reflexes	4
Pinpoint pupils with reduced to absent oculocephalic re-flexes	3
Unilateral, unresponsive mydriasis with reduced to absent oculocephalic reflexes	2
Bilateral, unresponsive mydriasis with reduced to absent oculocephalic reflexes	1
<b>Level of consciousness</b>	
Occasional periods of alertness and responsive to environment	6
Depression or delirium, capable of responding but response may be inappropriate	5
Semicomatose, responsive to visual stimuli	4
Semicomatose, responsive to auditory stimuli	3
Semicomatose, responsive only to repeated noxious stimuli	2
Comatose, unresponsive to repeated noxious stimuli	1