What is the ACVECC VetCOT trauma initiative?

The American College of Veterinary Emergency and Critical Care's (ACVECC) Veterinary Committee on Trauma (VetCOT) has a vision to create a network of lead hospitals that seed development of trauma systems. These hospitals will work collaboratively to define high standards of care and disseminate information that improves trauma patient management efficiency and outcome. Veterinary Trauma Centers (VTCs) will contribute to a trauma registry that allows for continued advancement of trauma patient care.

The four aims of the trauma initiative are:
1. Enhancement of trauma patient care
2. Enhancement and promotion of research collaborations
3. Expansion and formalization of education on veterinary trauma
4. Enhancement of the visibility of veterinary specialty colleges

The development of the VTC network is an ongoing work in progress, with a very purposeful, gradual expansion to ensure processes at and between VTCs are solidified and validated as the network expands. A multi-disciplinary approach to patient care is at the core of the initiative. Although the initiative is formally housed in the ACVECC, input and involvement from other specialty colleges and groups is imperative both at the local (VTCs) and national level.

In 2013, the first 9 VTCs were provisionally selected (identified) and approximately 1 year later verified. A total of 5 waves of hospitals have been identified and the first 4 waves have subsequently been verified approximately 12-18 months later. As of August 2019, there are a total of 30 VTCs in the network: 22 verified VTCs [Level I (7), Level II (12), Level III (2), in process (1)] and eight hospitals that have recently been identified.¹ The document outlining resource requirements for VTCs, “Resources for the optimal care of the injured veterinary patient”, was updated in 2018.² It is expected the next wave of hospitals will be identified summer 2019.

All VTCs participate in the VetCOT coordinated veterinary trauma registry which has captured data on >40,000 trauma cases since its inception in September 2013. The registry and multi-center VTC network provide a framework for future descriptive and interventional trauma clinical research that may have translational medicine application. A summary of the first 21,000 cases in the registry was published in 2018.³ There are currently 9 approved projects utilizing data from the registry. Applications for registry use are being accepted on a rolling basis.⁴

In a multi-disciplinary effort, the VetCOT Pre-Hospital subcommittee published, “Best practice recommendations for prehospital veterinary care of dogs and cats” (JVECC 26(2) 2016) and is in the process of developing a standard course for Pre-hospital veterinary care. The VetCOT Education subcommittee and VetCOT Nursing subcommittee are also developing educational tools for utilization in veterinary hospitals and for nursing/technician staff, respectively. An annual ACVECC VetCOT Trauma and Critical Care conference is held in Las Vegas in conjunction with the Trauma, Critical Care & Acute Care Surgery conference.

Please visit the VetCOT website (www.vetcot.org) or contact Kelly Hall (kellyhall@vetcot.org) if you have any questions, comments, or would like to find out more about the initiative.

Editorials:

Links:
4. Registry Use application material: http://vetcot.org/index.php/home/registry-use-materials/
Role of the veterinary trauma center – Overview

A small animal (SA) veterinary trauma center (VTC) can provide team-based care for any trauma patient. It provides the SA trauma patient with access to comprehensive resources for their treatment. In a VTC, an emergency veterinarian is immediately available to the SA trauma patient while other veterinarians with specific specialist qualifications may be on call for emergency consultation and/or available during standard business hours, depending on the verification level of the VTC.

Veterinary trauma centers are available to receive transfers of severely injured animals referred from other primary veterinary clinics and other emergency hospitals. All VTC hospitals are also able to receive and medically address the condition of any urgent or emergent veterinary patient (i.e. not just those that have experienced trauma).

Additionally, VTCs offer the most up-to-date care for SA trauma patients by meeting standards of continuing education, remaining up to date with advances in human and veterinary trauma care, and a process of performance assessment and improvement. VTCs will contribute to the veterinary knowledge base by training veterinarians in trauma care (staff doctors, interns and/or residents), conducting trauma-related research, and maintaining medical record systems amenable to contributing required data to a trauma database that can be used for single and multi-center veterinary trauma research.

Verification levels for veterinary trauma centers – Overview

These guidelines are intended to provide a description of verification levels (I through III) and associated standards for VTC facilities. Verification levels set specific criteria and standards of care that outline the capabilities of a particular VTC. This information is designed to help animal owners and referring veterinarians in choosing the most appropriate veterinary facility for an injured animal. Below is a listing and brief description of verification levels. This document also provides more detailed requirements for each VTC level.

**Level I VTCs** must have the ability to provide total care for every aspect of management of the SA trauma patient from emergency stabilization through definitive medical and surgical care, and rehabilitation. This requires significant depth of resources (medical and surgical) and personnel. These hospitals are open to receive SA trauma patients (and other emergencies) 24 hours a day, 7 days a week, 365 days a year. Level I VTCs also have the responsibility of providing leadership in education, training of veterinarians and veterinary technicians, and research. Level I VTCs are likely to have internship and/or residency programs in emergency and critical care (ECC); however, this is not a current requirement. Training for emergency veterinarians and technicians should involve, at a minimum, regular in-house continuing education specifically in the field of trauma.

Level I VTCs have specialists available for in-house consultation 7-days a week in the fields of emergency and critical care, surgery, cardiology and radiology. In order to enable definitive care for trauma patients, specialists in anesthesiology, neurology, internal medicine, cardiology, and ophthalmology are also available on staff and on an on-call basis as needed. The intensive care unit (ICU) is under the supervision of an emergency and critical care specialist (DACVECC) and is staffed by experienced and/or certified veterinary technicians (CVTs) and veterinarians 24 hours a day, 7 days a week.

**Level II VTCs** are acute care facilities with the commitment, resources, and skilled personnel necessary to provide sophisticated medical and surgical, emergent and critical care for critically ill or injured animals. These hospitals are open to receive SA trauma patients (and other emergencies) 24 hours a day, 7 days a week, 365 days a year. Level II VTCs must have specialists in emergency and critical care, surgery and internal medicine. Additionally these centers have a radiologist(s) available for consultation (if not available in-house).
**Level III VTCs** facilities have similar requirements to those of Level II VTCs with the exception that they are not required to be open 24 hours a day. Level III VTCs have the commitment, resources, and skilled personnel necessary to provide high level care for injured animals during business hours. These hospitals are open to receive SA trauma patients (and other emergencies) during part of the day but not necessarily 24 hours a day. Level III VTCs are primarily involved in the stabilization of severely traumatized patients and management of less severely injured trauma patients. There must be a veterinarian on duty, on the premises, at all times during hours of operation. These hospitals are not required to be staffed with veterinarians and technicians 24 hours a day and thus may transfer patients to a Level I or II VTC following initial stabilization, for ongoing care. Additionally, these hospitals are not required to have veterinarians with specialist qualifications on staff, and thus animals may be transferred to another facility for definitive medical or surgical care when necessary. Level III VTCs have procedures in place to allow consultation with, and easy transfer of patients to, Level I and/or II VTCs.

Based on these levels it is expected that there are relatively few Level I VTCs, larger numbers of Level II VTCs and even larger numbers of Level III VTCs. As a guideline, Level I VTCs are anticipated to include the larger, higher case-load, urban or suburban university hospitals and the largest private referral hospitals; Level II VTCs will include smaller, lower case-load university hospitals and private emergency and referral hospitals. Level III VTCs will include emergency clinics/hospitals (which may or may not be associated with a specialty referral hospital), and busy general practices with an interest in emergency and trauma medicine.

**General staffing requirements for veterinary trauma centers**

Regardless of the certification level of the VTC, staffing should be sufficient to allow:

- stabilization of multiple patients concurrently

- performance of life-saving procedures, including but not limited to intubation and short-term ventilation, administration of intravenous fluids, damage control surgery, placement of thoracostomy tubes and cardiopulmonary resuscitation (CPR)

- treatment of inpatients; and

- appropriate and timely consultation with veterinary specialists.

Depending on the caseload of the VTC, this requires at least (3) people, including at least (1) veterinarian and at least (1) veterinary technician, on the premises at all times during the hours of operation.

Visit vetcot.org for a full copy of the most up-to-date “Resources” document.