Apr 16, 2018 10:17 AM

**IVECCS 2018 Conference** 

**Call for Abstracts** 

Submission Reference Number: 0202\_0296\_000003 Status: Submitted

## Information



#### **IVECCS CALL FOR ABSTRACTS**

## **Small Animal**

**Resident and General Abstracts** 

2018 International Veterinary Emergency and Critical Care Symposium Hyatt Regency – New Orleans, LA • 14 to 18 September, 2018

#### **General Information**

Thank you in advance for submitting a Small Animal abstract for presentation at IVECCS 2018 and publication in the JVECCS journal and proceedings. Abstracts should represent original research not yet published or presented elsewhere and not to be published or presented prior to the 2018 IVECCS. Authors of successful abstracts will be notified via e-mail by June 4, 2018. Accepted abstracts will be presented at IVECCS in September. Each presentation will be twelve minutes in length followed by a three-minute discussion. Abstracts not accepted for oral presentation may be given the option to be presented as posters. Presenters may choose poster as the primary means of presentation if so desired by indicating preference on the submission website.

F. A. (Tony) Mann, DVM, MS, Diplomate ACVS, Diplomate ACVECC Small Animal Abstracts Coordinator IVECCS 2018

#### Residents

If you are currently an approved ACVECC resident please indicate so within the submission system and provide your ACVECC diplomate mentor's name and e-mail address where prompted. The highest ranked resident abstracts, as determined by blind review, will be presented in the Resident Segment, and special recognition will be given to the most outstanding presentation(s). If you completed your residency after 1 July 2017, and have never before presented in the Resident Segment, you may present in the Resident Segment if the research was conducted while you were a resident. [Note: If you have been accepted for an ACVECC residency but have not yet started your program, you are NOT eligible for the Resident Segment, but are welcome (and encouraged) to submit your abstract to be presented in the General Segment, if accepted.]

#### **Abstract Instructions**

Abstracts must be submitted with strict adherence to the format. You are required to submit the Short Abstract (350 words or less) which will be used for publication, assuming it is accepted. You must also submit a Long Abstract (450

words or less) which will help the reviewers more comprehensively understand your abstract and better assess its value for presentation and publication.

Your abstract will be formatted with the following headings, do NOT include the following headings in the abstract body.

- Introduction
- Methods
- Results
- Conclusions

#### **Sample Abstracts**

Short Abstract Long Abstract

Abstract review will begin in late April of 2018. If your abstract is accepted, the deadline to accept or decline your invitation will be 11:59 p.m. (Central Time) 22 June 2018. To see the criteria reviewers are asked to consider, please click here

Please click Next below to continue.

## Submission

Abstract Title \*

EVALUATION OF FELINE RED BLOOD CELLS COLLECTED WITH AN OPEN SYSTEM AND STORED FOR 35 DAYS AS WHOLE BLOOD UNITS

**Presentation Format \*** 

Poster

**Different Format \*** 

Nο

Resident Presentation \*

No

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## **Short Abstract**

## **Short Abstract**

### Introduction \*

The increasing access to veterinary hospital blood banks and commercial sources of feline blood products means that transfusion therapy is more widely available to veterinarians and feline stored blood products are used more often. Despite the increasing availability of feline blood collected and stored for transfusion purposes, few studies have investigated storage lesions in feline whole blood (FWB) units and no study has evaluated hematological changes in FWB units. The objective of this study was to assess changes in feline RBCs collected and stored for transfusion purposes as FWB units.

90 words

### Methods \*

A prospective, laboratory *in vitro* study was conducted. Twelve non-leukoreduced FWB units were collected with an open system using three 20 ml syringes pre-charged with citrate, phosphate, dextrose and adenine (CPDA-1) preservative-anticoagulant solution with ratio with blood of 1:7 from anesthetised feline blood donors. Units were stored in a blood bank dedicated refrigerator and sampled every 7 days (D7, D14, D21, D28) from collection (D0) to the end of storage (35 days, D35). At each time point the following were evaluated: I) hematological parameters (RBC, HGB, HCT, MCV, MCH, MCHC, RDW); II) percentage of hemolysis; III) morphological index, scored of 0 to 4 based on echinocyte transformation of the normal discocyte; IV) aerobic and anaerobic blood culture. Results were statistically compared to D0, with T test or Wilcoxon test, as appropriate with statistical significance set at *P* < 0.01.

139 words

#### Results \*

There was no significant difference in hematological parameters at any time point with respect to D0. Significant increases were found in percentage of hemolysis and morphological index starting from 21 days of storage (P = 0.0002 and P = 0.0039, respectively). Mean hemolysis percentage value was less than 1% up to 21 days of storage. All blood cultures were negative for bacterial growth.

63 words

#### Conclusion \*

RBCs in FWB units collected with an open system can undergo some significant hematological changes, but these results suggest that storage for up to 21 days is safe. *In vivo* studies are required to establish if these changes affect the ability of stored RBCs to circulate and provide adequate oxygen delivery after transfusion.

53 words

Please click **Next** below to continue.

## **Long Abstract**

## Long Abstract

### Introduction (Long) \*

The increasing access to veterinary hospital blood banks and commercial sources of feline blood products means that transfusion therapy is more widely available to veterinarians and feline stored blood products are used more often. Despite the increasing availability of feline blood collected and stored for transfusion purposes, few studies have investigated storage lesions in feline whole blood (FWB) units and no study has evaluated hematological changes in FWB units. The objective of this study was to assess changes in feline RBCs collected and stored for transfusion purposes as FWB units.

90 words

## Methods (Long) \*

A prospective, laboratory in vitro study was conducted. Twelve non-leukoreduced FWB units were collected with an

open system using three 20 ml syringes pre-charged with citrate, phosphate, dextrose and adenine (CPDA-1) preservative-anticoagulant solution with ratio with blood of 1:7 from anesthetised feline blood donors. Units were stored in a blood bank dedicated refrigerator and sampled every 7 days (D7, D14, D21, D28) from collection (D0) to the end of storage (35 days, D35). At each time point the following were evaluated: I) hematological parameters (RBC, HGB, HCT, MCV, MCH, MCHC, RDW); II) percentage of hemolysis; III) morphological index, scored of 0 to 4 based on echinocyte transformation of the normal discocyte: a discocyte obtained a score of 0, and echinocytes were graded from +1 to +3 as follows: echinocyte I (+1), irregularly contoured discocyte with up to 5 protrusions; echinocyte II (+2), flat cell with multiple spicules; and echinocyte III (+3), ovoid or spherical erythrocyte with multiple spicules; for each sample, 200 RBCs were scored and the morphological index was calculated as  $\Sigma$  scores/200; IV) aerobic and anaerobic blood culture. All analysis was conducted using a protocol approved by the University of Milan Animal Welfare Bioethical Committee. Results were statistically compared to D0, with T test or Wilcoxon test, as appropriate with statistical significance set at P < 0.01.

219 words

## Results (Long) \*

There was no significant difference in hematological parameters at any time point with respect to D0. Significant increases were found in percentage of hemolysis and morphological index starting from 21 days of storage (mean paired difference for hemolysis between D0 and D21 = 0.56, P = 0.0002; median paired difference for morphological index between D0 and D21 = 0.92, P = 0.0039). Mean hemolysis percentage value was less than 1% up to 21 days of storage. All blood cultures were negative for bacterial growth.

84 words

### Conclusion (Long) \*

RBCs in FWB units collected with an open system can undergo some significant hematological changes, but these results suggest that storage for up to 21 days is safe. *In vivo* studies are required to establish if these changes affect the ability of stored RBCs to circulate and provide adequate oxygen delivery after transfusion.

53 words

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