



AVHTM Newsletter

Special Events of Interest:

- **Virtual 2021 ACVIM Forum**
June 9-12
- **Virtual EVECC.**
Theme: Rising to the challenges in Emergency Medicine Congress 2021
June 3-5
- **International Society of Blood Transfusion virtual conference 2021 "ISBT in Focus"**
June 2-8
- **International Society on Thrombosis and Hemostasis (ISTH) 2021 Virtual Congress**
July 17-21

A 501(c)(3) nonprofit professional association

Volume 5, Issue 2

Welcome to the Spring/Summer 2021 AVHTM Newsletter

We have our usual report on the recent hematology and transfusion medicine literature (thank you, Ken Yagi), and it is worth highlighting that the most recent issue of the Journal of Veterinary Emergency and Critical Care was devoted to Transfusion Medicine. There are lots of interesting articles including the TRACS consensus statements discussing the definitions, prevention, diagnosis and treatment of transfusion reactions in dogs and cats. They are open access (<https://onlinelibrary.wiley.com/toc/14764431/current>) and should hopefully bring some clarity to this often confusing area, as well as showing the (many!) questions we still have to answer with further research. Following on from other recent articles in our last newsletter about how blood banks have been coping with the COVID epidemic, we have an article from HemoSolutions. We also have an article on World Blood Donor Day which is rapidly approaching. And then we have further information on the upcoming AVHTM SIG which we are really looking forward to. We hope you enjoy the newsletter and wish you, your donors, recipients and colleagues a happy, healthy Summer.



The AVHTM Committee



HemoSolutions



When we first started HemoSolutions, statistically the SBA said that most small business with employees did not survive past 5 years, but nobody said anything about surviving a pandemic.

Thankfully, we have remained open and moving forward. Every single aspect of volunteer veterinary blood banking has been affected by the pandemic, from donor recruitment, donor retention, scheduling, logistics of the actual blood drives, maintain staffing levels, vendor supplies and even the shipping. What use to be commonplace in administrative duties are now nightmares. What use to present as welcomed professional challenges now are difficult balancing acts because of the many additional responsibilities due to our limited staff. When the rest of the world is complaining about how everything is at a standstill, the veterinary world is still moving and not slowing down at all. Providing blood products has never been an easy task. Never has a blood banker been accused of saying, "There's too much blood, and not enough demand". The demand for blood products has not slowed down at all, however the ability to provide those blood products is now, dare I say even more difficult.

When it comes to volunteer donors, HemoSolutions has with no doubt the best owners/volunteer donors out there. The pandemic has hit them hard as well, some are working from home, some are not working, some are afraid, many are frustrated. Communication is even more important now as we are offering curbside appointments, and no owners are allowed in with the donors at this time. Owners trust us with their animals and that is especially important to us. We are currently working on a way for them to watch via video. Appointment times take a bit longer now, as we are taking additional time and precautions to sanitize all contact surfaces. There are also more cancellations than normal, we ask that if anyone is showing any signs of illness or have been exposed or have positive tests results to CoVID to please reschedule. When we have had a CoVID exposure or potential positive we have had to cancel and make staffing arrangements to accommodate as well. For the most part, all owners have been quite understanding. Blood drives typically take 2-3 people to physically perform the blood drives, and that alone it can be difficult to maintain 6 feet social distance. So to ensure staff safety, mask compliance and strong communication regarding outside work activities is encouraged.

Once we finally had the logistics of our blood drives and scheduling worked out, then we started having problems with receiving our medical supplies. Most notably with our collection bags, turned out it was across the nation. We continue to have issues. Several other products as well, and even the most basic of veterinary supply items. Gloves, needles, autoclave supplies, PPE supplies etc. With so many representatives working from home these days, it has been difficult getting new accounts set up. In the past we would typically just order from one or two medical supply companies, now depending on who has what available we could order from five different companies.

Donor recruitment has taken quite the hit. In the past we have relied on many outdoor summer events and indoor winter expo events to find our donors. Now we can not do any in person donor events and have to rely more on social media and word of mouth to recruit donors. Of course, we are always thinking outside the box for affordable ideas in donor recruitment, we just have to get more creative.

Challenges administratively remain within the ever changing CDC recommendations and making sure we are following our local, state, and federate mandates. Unemployment laws and the unfortunate rise in unemployment fraudulent claims are also issues that have to be monitored. There is anxiety when it comes to hiring desperately needed support staff and committing to enough hours for new hires in a potentially unstable work force.

The quality of the products, the safety of our donors, the wellbeing of our transfusion recipients, financial decisions regarding growth, human resources, safety, and financial balance have always been things that we as administrators/owners have had to mitigate in the past but the pandemic has definitely put an extra spin of uncertainty and unpredictability upon us.

AVHTM Special Interest Group (SIG) at ACVIM:

Hematology potpourri – an interactive discussion of AVHTM lectures with expert speakers

On Saturday June 12, and 6 PM – 7:30 PM Eastern Daylight Time, we will host a virtual Special Interest Group (SIG) as part of the ACVIM 2021 Forum. Since our AVHTM lecture track will be on-demand, we wanted our members to have time to interface with our speakers and have developed this year's SIG. As such, we have developed an interactive session with some of our expert AVHTM speakers!

Our meeting will start with a brief AVHTM update. Dr. Urs Giger will then lead us in discussion of the controversies of IMHA immunodiagnostics. Please plan to watch his ACVIM on demand lecture on this topic prior to the SIG. Dr. Giger held the endowed Charlotte Newton Sheppard Professor chair at the University of Pennsylvania and is also a faculty at the University of Zürich. He is a diplomate of the American and European College of the Veterinary Internal Medicine, as well as a diplomate of the European College of Clinical Pathology. He is well recognized in veterinary hematology and transfusion medicine.

Drs. Anne Hale and Sarah Musulin will then discuss novel veterinary transfusion products that were introduced in Dr. Musulin's on-demand AVHTM lecture. Anne S Hale, DVM, is currently Director of the New Mexico Ecosystem for Pathway Vet Alliance and practicing Internal Medicine at Veterinary Emergency and Specialty center of New Mexico. She is the past CTO for BodeVet, CEO for Midwest Animal Blood Services, and a long-time member of AVHTM. Sarah Musulin, DVM, DACVECC is a Clinical Associate Professor in Emergency and Critical Care at NC State University. Dr. Musulin is the Blood Bank Director and ER Director at NC State. Dr. Musulin's academic areas of interest are small animal transfusion medicine and blood banking. Dr. Musulin is a current board member and past president (2016-2020) of AVHTM.

Finally, Dr. John Thomason, one of the leaders of AVHTM's Transfusion Reaction Small Animal Consensus Statement (TRACS), will provide an overview of the methods that were used in TRACS and guide a discussion of the next phase of development of AVHTM blood-banking standards. Dr. Thomason's pre-recorded on-demand ACVIM lecture entitled "Transfusion Reactions: Definitions and Evidence-Based Recommendations" will provide a foundation for our discussion. Dr. Thomason is an Associate Professor in Small Animal Internal Medicine at Mississippi State University. Dr. Thomason's academic and research areas of interest are small animal hematology, hemostasis, and transfusion medicine. Dr. Thomason is the current Secretary of the AVHTM. We hope to assemble the next group of experts to tackle the important task of developing blood-banking standards.

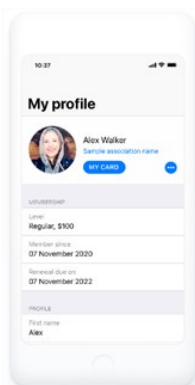
Please note that to participate in the SIG live, you must register for the ACVIM Forum. However, we will record the SIG and make the content available to our members after the SIG.

SIG sponsorship is graciously provided by [Alveda](#) and [Fresenius Kabi](#).



An app to help you stay connected

Staying in touch has been difficult for all of us during this pandemic. Download the AVHTM's Members app and sign in with the same email



This app helps you:

- Interact with fellow members anywhere from your mobile device
- Update your member profile, including your address, phone and email
- View your membership card



Scan the QR code with your mobile device or click on the icon to download the app from the iTunes or Google Play app stores.



World Blood Donor Day

June 14th is World Blood Donor Day. This day was first celebrated in 2005 and was a joint initiative of the World Health Organisation (WHO) and the International Federation of Red Cross and Red Crescent Societies. June 14th was chosen as WBDD as it is the birthday anniversary of Karl Landsteiner who discovered the ABO blood group system. He was born in 1868 and was awarded the Nobel Prize in Physiology or Medicine for the discovery in 1930.

The aims of the day are:

- Raising global awareness of the need for safe blood products
- Recognising and thanking blood donors for their voluntary life-saving donations of blood
- Bringing attention to the need for national health authorities to provide resources and infrastructure for blood donation

The 2021 WBDD slogan is **“Give blood and keep the world beating”**. Specific objectives of this year’s campaign are to create wider public awareness of the need for regular unpaid blood donation, to promote the value of blood donation in enhancing community solidarity and social cohesion, to encourage youth to embrace the humanitarian call to donate blood and to inspire others to do the same and, finally, to celebrate the potential of youth in promoting health.

These are pretty lofty aims and I wonder what we can learn from the day and its goals as a veterinary community. Certainly raising awareness of the veterinary need for blood products and recognising and thanking our donors seem like things we should be doing.



We celebrate WBDD at the Royal Veterinary College annually, although, as with so many aspects of our work things have been different recently. The celebration was minimal last year and will be pretty scaled back this year too. We will still name our ‘Donor of the Year’ though and we use the day as a springboard to promote our blood bank through social and traditional media resources. This is so necessary as we find that there are plenty of pet owners who are either completely unaware or poorly informed about what we do. It would be great to hear about how other institutes celebrate or mark the day, or maybe how they plan to in the future.



Unlock New Possibilities

Introducing the only company dedicated to supporting Veterinary Transfusion Medicine. Our TT-VET Apheresis Device streamlines the collection process from a wide range of mammals so you can focus on saving lives.

Recently Published Articles

- **Platelet-Derived Products in Veterinary Medicine: A New Trend or an Effective Therapy?** Soares CS, Babo PS, Reis RL, Carvalho PP, Gomes ME. Trends Biotechnol. 2021 Mar;39(3):225-243.
- **The effect of time on packed cell volume following packed red blood cell transfusion in anemic dogs.** Morris JL, Bloch CP, Brabson TL. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):215-220.
- **Assessment of platelet biology in equine patients with systemic inflammatory response syndrome.** Ehrmann C, Engel J, Moritz A, Roscher K. J Vet Diagn Invest. 2021 Mar;33(2):300-307.
- **The Impact of Rapid Infuser Use on the Platelet Count, Platelet Function, and Hemostatic Potential of Whole Blood.** Zaza M, Meyer DE, Wang YW, George M, Daniels K, Cardenas JC, Cotton BA. J Surg Res. 2021 Apr;260:76-81. PMID: 33326931
- **Transfusion transmissible pathogens are prevalent in healthy cats eligible to become blood donors.** Mesa-Sanchez I, Ferreira RRF, Cardoso I, Morais M, Flaminio M, Vieira S, de Gopegui RR, de Matos AJF. J Small Anim Pract. 2021 Feb;62(2):107-113. PMID: 33305378
- **The effects of additive solutions on the development of storage lesions in stored canine platelet concentrates.** Haines JM, Hwang JK, Wardrop KJ. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):247-255.
- **Romiplostim as Adjunctive Treatment of Refractory Amegakaryocytic Immune Thrombocytopenia in a Dog.** Polydoros T, Ioannidi OM, Korsavvidis I, Stefanidis S, Antoniadis T, Mylonakis ME. Top Companion Anim Med. 2021 Mar;42:100488.
- **Dal-induced red blood cell incompatibilities in a Doberman Pinscher with von Willebrand factor deficiency and ehrlichiosis.** Conti-Patara A, Ngwenyama TR, Martin LG, Wardrop KJ. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):274-278.
- **Preoperative autologous blood donation and transfusion in dogs undergoing elective surgical oncology procedures with high risk of hemorrhage.** Sharma S, Boston SE, Kotlowski J, Boylan M. Vet Surg. 2021 Apr;50(3):607-614.
- **Effects of leukoreduction on storage lesions in whole blood and blood components of dogs.** Stefani A, Capello K, Carminato A, Wurzbarger W, Furlanello T, Bertazzo V, Marsilio E, Albertin E, La Pietra G, Bozzato E, Mutinelli F, Vascellari M. J Vet Intern Med. 2021 Mar;35(2):936-945.
- **Transfusion practice in Australia: an internet-based survey.** Poh D, Claus M, Smart L, Sharp CR. Aust Vet J. 2021 Apr;99(4):108-113.
- **Association of Veterinary Hematology and Transfusion Medicine (AVHTM) Transfusion Reaction Small Animal Consensus Statement (TRACS). Part 1: Definitions and clinical signs.** Davidow EB, Blois SL, Goy-Thollot I, Harris L, Humm K, Musulin S, Nash KJ, Odunayo A, Sharp CR, Spada E, Thomason J, Walton J, Wardrop KJ. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):141-166.
- **Association of Veterinary Hematology and Transfusion Medicine (AVHTM) Transfusion Reaction Small Animal Consensus Statement (TRACS) Part 2: Prevention and monitoring.** Davidow EB, Blois SL, Goy-Thollot I, Harris L, Humm K, Musulin S, Nash KJ, Odunayo A, Sharp CR, Spada E, Thomason J, Walton J, Wardrop KJ. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):167-188.
- **Association of Veterinary Hematology and Transfusion Medicine (AVHTM) transfusion reaction small animal consensus statement (TRACS). Part 3: Diagnosis and treatment.** Odunayo A, Nash KJ, Davidow EB, Blois SL, Goy-Thollot I, Harris L, Humm K, Musulin S, Sharp CR, Spada E, Thomason J, Walton J, Jane Wardrop K. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):189-203.
- **A Critical Overview of the Use of Platelet-Rich Plasma in Equine Medicine Over the Last Decade.** Camargo Garbin L, Lopez C, Carmona JU. Front Vet Sci. 2021 Mar 31;8:641818

Recently Published Articles

- **Risk of transmittable blood-borne pathogens in blood units from blood donor dogs in Canada.** Nury C, Blais MC, Arsenault J. J Vet Intern Med. 2021 May 7. doi: 10.1111/jvim.16139.
- **In vitro effects of temperature on red blood cell deformability and membrane stability in human and various vertebrate species.** Matrai AA, Varga G, Tanczos B, Barath B, Varga A, Horvath L, Bereczky Z, Deak A, Nemeth N. Clin Hemorheol Microcirc. 2021 Feb 26.
- **The role of cryoprecipitate in human and canine transfusion medicine.** Prittie J. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):204-214.
- **Effect of Leukoreduction on Hematobiochemical Parameters and Storage Hemolysis in Canine Whole Blood Units.** Antognoni MT, Marenzoni ML, Misia AL, Avellini L, Chiaradia E, Gavazza A, Miglio A. Animals (Basel). 2021 Mar 24;11(4):925.
- **2021 ISFM Consensus Guidelines on the Collection and Administration of Blood and Blood Products in Cats.** Taylor S, Spada E, Callan MB, Korman R, Leister E, Steagall P, Lobetti R, Seth M, Tasker S. J Feline Med Surg. 2021 May;23(5):410-432.
- **Assessment of Donkey (*Equus asinus africanus*) Whole Blood Stored in CPDA-1 and CPD/SAG-M Blood Bags.** Barros IO, Sousa RS, Tavares MD, Rêgo RO, Firmino PR, Souza FJA, Abrantes MR, Minervino AHH, Araújo CASC, Ortolani EL, Barrêto Júnior RA. Biology (Basel). 2021 Feb 8;10(2):133.
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- **Randomized double-blinded clinical trial on acute transfusion reactions in dogs receiving leukoreduced versus non-leukoreduced packed red blood cells.** Radulescu SM, Skulberg R, McDonald C, Chan DL, Humm K. J Vet Intern Med. 2021 May 7
- **Biochemical and hematologic changes in whole blood from Brazilian horses stored in citrate-phosphate-dextrose-adenine pouches for up to 28 days.** Dorneles TEA, Costa Junior JD, Almeida RM, Teixeira Neto AR. Vet Clin Pathol. 2021 Apr 25.
- **The effects of two intramuscular sedation protocols on echocardiographic variables in cats following sedation and blood donation.** Reader RC, Yang VK, Babyak JM, Abelson AL. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):256-262.
- **Effect of microaggregate filter passage on feline whole blood stored for 35 days.** Morse SA, Mooney ET. J Feline Med Surg. 2021. Online ahead of print.
- **Effects of storage and leukocyte reduction on the concentration and procoagulant activity of extracellular vesicles in canine packed red cells.** Avenick D, Kidd L, Istvan S, Dong F, Richter K, Edwards N, Hisada Y, Posma JJN, Massih CA, Mackman N. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):221-230.
- **Hemostatic capacity of canine chilled whole blood over time.** Edwards TH, Darlington DN, Pusateri AE, Keesee JD, Ruiz DD, Little JS, Parker JS, Cap AP. Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):239-246.
- **An in vitro study of canine cryopoor plasma to correct vitamin K-dependent coagulopathy in dogs.** Cheung H, Jandrey KE, Burges J, Brooks M, Kent MS. J Vet Emerg Crit Care (San Antonio). 2021 Mar;31(2):231-238.
- **Quantitative assessment of infusion pump-mediated haemolysis in feline packed red blood cell transfusions.** Blasi-Brugué C, Sanchez IM, Ferreira RRF, de Matos AJF, Ruiz de Gopegui R. J Feline Med Surg. 2021
- **Preliminary Investigation of Bovine Whole Blood Xenotransfusion as a Therapeutic Modality for the Treatment of Anemia in Goats.** Smith JS, Viall AK, Breuer RM, Walton RA, Plummer PJ, Griffith RW, Kreuder AJ. Front Vet Sci. 2021 Mar 4



We're on the web!

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AVHTM is an IRS approved 501(c)(3) nonprofit professional association composed of veterinarians, hematologists, academics, veterinary technicians, blood bankers, and interested public who desire to further scientific advances in transfusion medicine and veterinary hematology.

We engage in veterinary research, promote industry standards, develop guidelines for canine and feline blood collection and processing, and publish scientific research in peer-reviewed publications.

Visit us online to learn more about AVHTM!

MEMBERSHIP BENEFITS

As an AVHTM member, you are eligible for the following:

- Reduced IVECCS registration fee (veterinarians save \$100 and technicians save \$25!)
- Access the a "Members Only" section of the AVHTM website, which includes access to:
 - o Other AVHTM profiles
 - o PubMed articles
 - o Forum for posting questions, cases, and research
 - o AVHTM Members App
- Ability to ask and answer questions posted to the AVHTM members-only Google group.

Please feel welcome to share this newsletter with interested colleagues and encourage them to become an AVHTM member!