

THE ROLE OF THE VETERINARY
TECHNICIAN TO IN-HOUSE
DIAGNOSTIC BLOOD TESTING

PRESENTED BY
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WHAT
CONSTITUTES AN
IN-HOUSE BLOOD
TEST?

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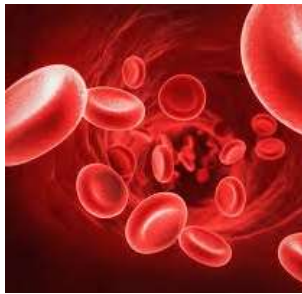
ACHIEVE
COMPLIANCE
BY KEEPING IT
SIMPLE

- By keeping the conversation simple, strategic and focused on their pet's health, we can obtain trust and create trust within our client relationships
- Considering the last year in the pandemic environment, simplicity is even more valued than ever due to time constraints and scheduling pressures

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WHAT IS A COMPLETE BLOOD COUNT?

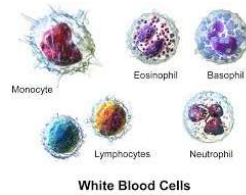
- **Red Blood Cells:**
 - Carry oxygen to the tissue of the body
 - Transport carbon dioxide to be exhaled by the lungs.
- Anemia results when red blood cells are not present in sufficient numbers.
- Determination of the cause of anemia is vital.



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WHAT IS A COMPLETE BLOOD COUNT?

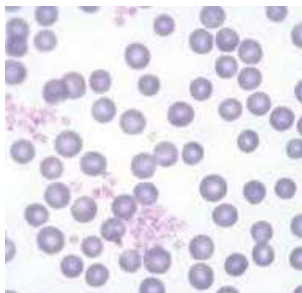
- **White Blood Cells:** play a major role in a pet's immune system function. Normal baseline levels are very important to determine the importance of changes seen with infection or inflammation.



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WHAT IS A COMPLETE BLOOD COUNT?

- **Platelets:** are crucial components of the blood clotting system. Adequate numbers must be present to stop bleeding.



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WHAT IS A BLOOD CHEMISTRY ?

A blood chemistry involves a collection of test evaluations which evaluate organ function and blood sugar in the body.

To the right are some of the elements in blood which are routinely tested.

- **Alanine Aminotransferase (ALT):** Increased enzymes maybe a sign of liver damage or disease.
- **Albumin (Alb):** Low levels can indicate liver, kidney or intestinal disease. MH1
- **Alkaline Phosphatase (ALP):** Elevations can indicate liver inflammation or decreased bile flow caused by liver disease or hormonal disorders.
- **Bile Acids (BA):** Bile acids are one of the best measures of liver function, and vital for identifying and monitoring liver disease.
- **Blood Urea Nitrogen (BUN):** BUN is made by the liver and removed from the body by the kidneys. It helps evaluate for diseases of both organs.
- **Cholesterol (Chol):** Elevated levels may be an indication of a variety of disorders including hyperlipidemia in dogs, and liver and kidney disease.
- **Gamma Glutamyl Transferase (GGT):** Measurement and monitoring is important for differentiating types of liver disease.
- **Globulin (Glob):** A body protein that indicates problems such as infection or inflammation.
- **Glucose:** Elevated levels can indicate problems such as diabetes. Low levels can be associated with liver disease and other issues.
- **Total Bilirubin (TBL):** An important value to evaluate liver function.
- **Total Protein:** We utilize this value to determine many conditions such as anemia, and diseases of the liver, kidney, and gastrointestinal tract.

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DID YOU KNOW?

The value of acid-base status

Having a complete electrolyte (Na⁺, K⁺, Cl⁻) result plus tCO₂ gives the ability of obtaining a basic evaluation of acid-base status of the patient to immediately decide if further tests are needed or select the right fluid to start a personalized therapy to stabilize the patient.

Some common signs or diseases in patients that requires acid-base analysis

- ✓ Gastrointestinal signs such as vomiting or diarrhea
- ✓ Respiratory signs such as dyspnea or tachypnea
- ✓ Cardiac signs such as tachycardia or bradycardia
- ✓ Chronic diseases such as Diabetes or CKD
- ✓ Intoxications



The anion gap can be calculated from these parameters to determine the general acidosis or alkalosis status of the patient, allowing for improved treatment and monitoring decisions in sick patients

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A COMBINATION OF A CBC AND CHEMISTRY IN-HOUSE CAN SET THE STAGE FOR A MORE COMPREHENSIVE CLIENT APPOINTMENT

Once the client agrees to perform necessary blood testing, the stage is set to obtain:

- A definitive patient baseline
- Discovery of subclinical disease
- More compliance for future treatment and testing




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Slide 7

MH1 Too small to be visualized on screens from a distance. Consider splitting into 2 or even 3 slides.

Melanie Hicks, 2/25/2020



When performing a blood test on any analyzer point-of-care or externally, a high quality sample will give high quality results

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IT ALL STARTS WITH SAMPLE COLLECTION

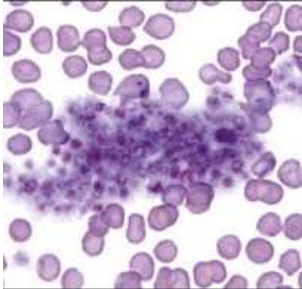
- Minimize trauma to prevent hemolysis
- Proper needle & syringe size – Avoid 25 G if possible
- Vacutainers
- Appropriate suction on syringe
- Appropriate amount of alcohol



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SAMPLE HANDLING AND PLATELET CLUMPING

- Swift blood draw from larger vein to minimize PLT clumping
- Clumps occur more often from small peripheral veins- jugular or cephalic best
- Minimize trauma during collection
- Cats have very reactive PLT
- Sick patients may have more reactive PLT



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IT ALL STARTS WITH SAMPLE COLLECTION

Sample Draw Order:

Blue Top (Citrate) → Red Top → Green Top (Lith Heparin) → Purple Top (EDTA)

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IT ALL STARTS WITH SAMPLE COLLECTION

Sample Preparation

- When adding blood to evacuated collection tubes, remove the needle from the syringe, remove the stopper from the tube, and gently place the sample into the tube
- Dispense slowly into sample tube to the manufacturer's recommended level or no less than 1/2 full for proper anticoagulant to sample ratio
- Never place a tube on a rocker
- Manually invert the sample slowly prior to analysis (10x) times

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IT ALL STARTS WITH SAMPLE COLLECTION

- Consider chemistry specific interferences (Low Ca with Increased K+ or Na+)
- Na+ EDTA Contamination Characteristics**
 - 1. Possible Low ALP
 - 2. Low Ca
 - 3. High Na+
 - 4. Possible Low K+
- K+ EDTA Contamination Characteristics**
 - 1. Low Ca
 - 2. High K+

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IT ALL STARTS WITH SAMPLE COLLECTION

- Consider chemistry specific interferences:
 - In whole blood samples stored at room temperature, **GLU** is metabolized by the cells
 - Storing samples at room temperature can **decrease readings by 5-10% per hour**. Conversely, **K+** is released from cells under these conditions, **potentially resulting in elevated K+ readings**.

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CAN I SAY A WORD OR TWO ABOUT MAINTENANCE?

- Whether it is your CBC or your chemistry analyzer, it needs to be properly maintained in order to obtain the most valuable and consistent results for our patients.
- Many of the clinical results we question trace back to inconsistent or inadequate maintenance of equipment



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CAN I SAY A WORD OR TWO ABOUT MAINTENANCE?

- Know what the maintenance is on your blood analysis equipment and perform the maintenance on a routine schedule
- Train each technical staff member how the maintenance is performed and if applicable assign a "lab champion" who will lead the charge
- Utilize the technical specialist both in person and over the phone to understand your equipment and to conduct in depth trainings at your hospital
- Ask questions! Get curious! Maintenance is a team effort and everyone's responsibility




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THE LANDSCAPE OF VETERINARY MEDICINE IS CHANGING

There is increasing competition for the loyalty and business for pet parents to care for their pets



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Walmart launches pet pharmacy, opening more in-store clinics
May 7, 2019

- Walmart says it is launching its first pet pharmacy and opening more in-store veterinary clinics.
- These clinics offer affordable, high quality and convenient services to save customers as much as 40 to 60 percent on vaccines and minor illness packages and exams. The company wrote on its website.
- The news comes at a time when private practices are already competing with online pharmacy retailers that are digging into their revenue.
- According to Walmart, it will provide low-cost prescriptions for dogs, cats, horses and livestock through WalmartPetRx.com. The website will offer more than 300 brands to treat conditions such as flea and ticks, heartworm, allergy, and arthritis, which are main sources of income for veterinarians. Walmart will also offer home delivery. The option to pick up pet prescriptions in-store will be available later this month, as the retailer is stocking more than 4,500 of its pharmacies with the 30 most requested pet medications.
- Walmart says it will be opening nine new clinics in the Dallas-Fort Worth area, Tex., in late May and June. It has plans to expand to more than 100 locations over the next 12 months.
- Images:
<https://www.veterinarianpracticenews.com/wp-content/uploads/2019/05/04gstock-walmart-04p.jpg>

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THE ROLE OF THE VETERINARY TECHNICIAN IS CHANGING

- The veterinary technician is not only a crucial team member who provides competent, vital technical skills the technician is lead person to drive crucial conversations that not only drive revenue but bond people and pets to their veterinary care choice



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THE ROLE OF THE VETERINARY TECHNICIANS IS CHANGING

- Since it is getting so challenging to offer unique treatment options, our veterinary skills and knowledge can assist our pet parents, our veterinary staff and our veterinarians to set our hospitals apart and drive loyalty at our clinics. One of those ways is through in-house blood testing.

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WHY PERFORM MORE IN-HOUSE BLOOD TESTING?


- Benefits of increased compliance for preventive blood testing
- What factors drive growth? What do clients want?
- Strategies to turn challenges into opportunities
 - Preventive age-based healthcare program, including blood testing
 - Develop a marketing / advertising strategy

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2015 & 2016 AAHA State of the industry

Client survey of 1,001 pet owners with 1+ dog/cat who see vet regularly

- Why clients stay:
 - Vet explains things in an understandable way
 - Shares test results with me
 - Vet treats me as a partner
- Why clients leave:
 - Communication & customer service issues more than any other reason



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Incorporating Blood Work into the Client Experience

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Pets R Us
12345 Main Street
Toronto, ON

Dear Carlie,
Next month you are due for the treatments or products listed below. Please have your family call our office at (416)123-1234 to schedule an appointment. Remember that a yearly physical exam is just as important as vaccines! Visit our website at vetcare.com

06-06-xx	Annual complete physical exam	
06-06-xx	Preventive blood test	←
06-06-xx	Heartworm test	
06-06-xx	Heartworm Preventive	
06-06-xx	Rabies vaccine	

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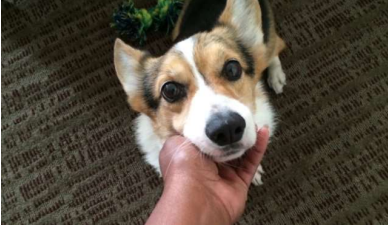
Phone Communication

- ✓ Try to book with the same veterinarian
- ✓ Give brief description of reason for visit, including preventive testing
- ✓ Remind to withhold food
- ✓ Reminder calls if book in advance

Helpful Tips




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Meet Gotham: 8 years old

Preventive blood testing:
OPTIONAL OR
RECOMMENDED?

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Meet Paisley: 6 Months old and coming in for her spay

- Preventive blood testing:
- OPTIONAL
- or
- RECOMMENDED?

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SET YOUR APPOINTMENT APART FROM THE CROWD

- Tech exam (blood testing recommendation)
- Blood draw & testing
- Veterinary Technician as the "first touch"



Exceptional service motivates staff and retains clients

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Recommendation from the Team

"The doctor recommends that we perform a preventive health screen on your pet every year. We watch for changes in organ systems such as the kidney & liver. We also monitor important blood cell levels, among many other things.


Should we find abnormalities, we can often treat the illness with better results & often at a lower cost.

If everything is normal, you will have peace of mind that all is well, & we will have normal baseline values to monitor your pet's health in the future."


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SET YOUR APPOINTMENT APART FROM THE CROWD

- Vet exam & discuss results
- Additional diagnostics
- Treatment
- Address questions
- Schedule follow-ups
- Your veterinarian should be reinforcing your "touch"



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Recommendation From The Vet

By this stage, preventive testing should have been discussed 3 times

- If client declines testing, the veterinarian SHOULD repeat the recommendation:

"Ms. Nixon, while all of Paisley's physical examination findings appear to be normal, I would still recommend we perform an preventive blood test.

This helps to ensure that all of her internal organ functions that I cannot evaluate through the examination are normal."

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8 in 10 pet owners who don't always agree to do blood work at annual check up would probably say YES if the value of the test was explained.

-AAHA 2016 State of the Industry Client Survey

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SET YOUR APPOINTMENT APART FROM THE CROWD

Puppy & Kitten Visits

- Sensitize owners to recommended procedures
 - Spay/neuter estimate on the last puppy/kitten visit
 - Whole Life, Age-Based Preventive Care (Including blood testing)
 - Pet insurance/Payment Plans
 - Breed predilections



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Bloodwork in Preventive Programs

1. Teamwork - be consistent
2. Prioritize, set goals & track
3. Discuss progress- staff meetings
4. Improve compliance with awareness
5. Communicate & deliver great service
6. Team bonus plan



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It's Never Better to Wait!

- Increased efficiency- No call backs
- More time for client education
- Provide client with value and peace of mind for pet
- Increased compliance for medications and other recommendations

Affordable pricing to enhance compliance