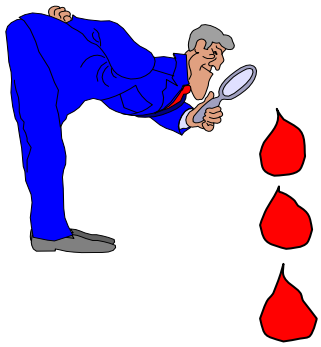
ANOTHER *BLOODY* NEWSLETTER!
August 2003

AT III Testing:



The AT III test is now available for dogs, at a cost of $35 fee routine, $40 emergency. The test is free for cats and horses, while data is being collected. Please submit a full blue- top tube for analysis. Freeze plasma if it is not to be run immediately. The results are reported in whole numbers as % of normal human plasma (NHP). The pooled normal species-specific plasma result is also available. Normal plasma AT III activity in the adult population is usually in the range of 80 – 120% of pooled normal species-specific plasma.

Hematology case example:

A sample for a CBC was submitted in a clotted, under-filled tube. Results obtained from this tube were:
WBC count = 8,480/ul
Platelet count = 275,000/ul.
Data obtained from a full, unclotted tube:
WBC count = 10,550/ul
Platelet count = 511,000/ul.
This case demonstrates that it is crucial to receive a good quality specimen.

Equine Protozoal Myeloencephalitis (EPM) testing:

The use of the EPM (Equine Protozoal Myeloencephalitis) vaccine may interfere with the interpretation of the most widely used test for the disease, western blot. Equine Biodiagnostics, Inc. (EBI) is doing pre and post vaccination testing for the western blot test to study this phenomenon. Please access this website for further information: http://ebiky.com/education.htm

FYI : Hemolyzed specimens:

Approximately 33% of our samples should be rejected due to hemolysis. Improper syringe draws are notorious for causing hemolyzed specimens. Syringes should be avoided, if possible, in favor of the evacuated tube system. A study was conducted to evaluate the effects of specimen quality when using syringe draws, compared to the evacuated tube system. Visual hemolysis was found in 19% of specimens drawn by syringe, compared to 3% when drawn by the evacuated tube system. In addition, syringe-collected samples exhibited clotted EDTA specimens in 11% of the patients, as opposed to none in the evacuated tube system.
If a syringe must be used, the following recommendations can reduce the incidence of hemolysis:

- Pump the plunger 2-3 times prior to collection to loosen the plunger.
- Tighten the needle and syringe connection.
- Use a 3-10 ml syringe, avoiding larger volumes if possible.
- Ensure that the speed of aspiration does not exceed 1ml of air space during collection.
- Perform blood transfer into the tube immediately.
- Fill tube by vacuum only. NEVER push down on the plunger; this increases the force of the blood flow, creating a high degree of RBC trauma.
- Angle the syringe so that the blood runs down the side of the tube. By preventing the cells from hitting the bottom of the tube with such a great force, RBC trauma can be reduced.
- Mix the blood thoroughly. Do not shake the tube after collection.

The bottom line is to obtain accurate test results that truly reflect the patient's status.

References:
1. BD White Paper VS5391, Evaluation of Sample Quality and Analytic Results Between Specimens collected in BD Vacutainer Tubes and Current Syringe Collections.
2. Carraro P, Servidio G and Plabani M, Hemolyzed Specimens; A reason for rejection or a clinical challenge?, Clin Chem (Letter) 2000;46:306-7.
3. Savory J, Bill J, Hemolysis of Specimens Drawn in the ER, Lab Med (Q&A) 1996; Vol 27,No.12:802.

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