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## SAMPLE QUALITY ASSESSMENT BEST PRACTICES

How to use objective terms and not subjective assessments when describing the quality of a Sample.

## Contact support@Species360.org

In the early planning phases for ZIMS, Groups of subject matter experts from the zoo and aquarium medical community provided guidance on the standardization of data and best practices. This group determined the characteristics of icterus (yellowish pigmentation, jaundice), hemolysis (disintegration of red blood cells) and lipemia (turbidity) were subjective assessments on the quality of a Sample and should be retired in favor of objective terms. Serum/plasma should simply be described with terms like "light pink" or "dark red"; cloudy or opaque, etc. They provided insight that there are a number of species (bongo antelope, flamingo) where the serum is pink without any hemolysis and calling those samples hemolyzed would be misleading and create inaccurate data. There are also reptiles, where hemolysis often produces a green coloration. It is not the "hemolysis" that causes problems with testing, it is the coloration that distorts the test results - dark red serum and light pink serum could both be marked hemolyzed, but the degree of coloration is the significant factor and this can be captured more accurately in ZIMS. This is one example of how ZIMS is responsive to the diverse needs of capturing accurate data on a wide variety of taxonomy.

Best practice tip for sample quality data entry: You may record hemolysis, lipemia or icteric as additional characteristics for ease of data entry, however, if a sample is created and marked as "Pink" for Color and "light" for Color Intensity to indicate hemolysis, and also marked as "Turbid/Cloudy" to indicate lipemia, then you have captured both the degree of hemolysis and the lipemia characteristics. It is also recommended to mark samples with multiple abnormalities as "Degraded" to help weed out samples that are not suitable for inclusion in the global Expected Test Results calculations.

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● Single Animal ID ○ Multiple Ani	imal IDs	Pre-Sampling Conditions			
Select Animal ID *		Fasting Duration *		Activity *	
B13002/Domestic chicken ×		< 2 hours	*	Low activity	~
		Restraint Type *			
Collection Date * Time 01/08/2019 00:00	Local Sample ID	Physical	~		
Collected By Staff C External Contact Sarah Schwenzer Additives/Preservatives	Sample Type * Plasma Anatomical Source/Tissue	Initial Holding Conditions Initial Holding Temperature Chilled/Refrigerated	*	Initial Holding Duration <= 10 hours	~
Heparin, Lithium	Medial metatarsal vein (n x	Sample Quality			
Phlebotomy	Clinic ×	Color		Color Intensity	
Reason	Status *	Pink	*	light	~
Medical>Preventative Health	Available	Clarity		Consistency	
region of the reventative Health	Available	Turbid/Cloudy	~	Please Select	~
Exclude from reference intervals	Collected From Dead Animal	Additional Characteristic			
		Please Select	~	Degraded or Deteriorated	

When you request a Test on the Sample you have the opportunity to note if the Sample quality has changed and has indications of hemolysis, lipemia or icterus under Additional Characteristic in the Sample Quality area.

olor	~	Edit
olor Intensity	~	
lit Sample Quality		×
Color		
Pink	~	
Consistency		
Please Select	~	
Color Intensity		
light	~	
Additional Characteri		
	*	
Select One		
1. hemolysis		Degraded or Deteriorated
2. lipemia		
3. icteric		🛃 Save 🚫 Cancel

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