



intelligent Quality Control... or as we like to call it, **iQC**

The genesis of the Abaxis technology took place at the Oak Ridge Laboratory, where under contract to the National Aeronautics and Space Administration (NASA), scientists sought to develop and manufacture a small biochemical analyzer for use in space laboratories. The VetScan VS2 chemistry analyzer has an extremely sophisticated intelligent Quality Control (iQC) system and proprietary algorithms that assure quality and dependable results. iQC is a series of automatic checks that verify the chemistry, optics and electronic functions of the analyzer during each run and ensures that operators in a wide range of environments report only accurate and reliable results. iQC automatically suppresses a single chemistry or the entire panel if it detects uncharacteristic performance and immediately alerts the operator to any problems.



SAVES TIME & MONEY

iQC eliminates labor and material costs of other analyzer controls and calibrations. Having iQC is like having a service and maintenance agreement at your fingertips, but at no cost.



ROCKET SCIENCE DELIVERED RIGHT TO YOUR LAB

iQC protects you and your patient by automatically ensuring your VS2 is working properly and providing accurate results... on every run.



BARCODE

The barcode on the top surface of each rotor encodes the type of test panel, the expiration date and the reagent calibration factors. At the beginning of the run, iQC verifies the integrity of the information in the barcode by the use of a cyclic redundancy check. It then checks the expiration date of the rotor against the analyzer's clock to verify that the expiration date has not been exceeded. The calibration information is transferred to the analyzer's memory to be used in the calculation of results.



FLUIDICS

The metering and movement of fluids (sample, diluent, and diluted sample) are controlled at all stages of the run by the analyzer's motor and design features of the rotor. The analyzer verifies the presence of adequate sample volume by sensing overflow into the "sufficient sample" cuvette. iQC will alert the operator if the presence of sufficient sample cannot be verified.



iQC REACTIONS

Chemistry QC reagent beads reveal and quantify any degradation of the analyte-specific reagents in the rotor due to suboptimal storage conditions (moisture and temperature). If degradation exceeds a defined level, the run is cancelled and an error message is displayed.



SAMPLE EVALUATION

iQC eliminates the need for visual evaluation of the sample for physical interferences (hemolysis, lipemia and icterus). The VS2 evaluates the quality of the sample and reports the measured values for each physical interference (hemolysis, lipemia and icterus). If a limit is reached for one or more analytes, the results are suppressed for those analytes only. The level of interference is indicated on the result and troubleshooting printouts.

INTERPRETING VETSCAN VS2 RESULTS

PATIENT RESULTS

VetScan VS2			
Critical Care Plus			
08 Oct 2016	07:45 AM		
Sample Type:	Dog		
Patient ID:	12201		
Rotor Lot Number:	6283AB0		
Serial Number:	0000V27059		
.....			
ALT	189 *	10-118	U/L
GLU	115 *	60-110	mg/dL
BUN	15	7-25	mg/dL
CRE	0.5	0.3-1.4	mg/dL
NA+	146	138-160	mmo1/L
K+	HEM	3.7-5.8	mmo1/L
CL-	110	106-120	mmo1/L
tCO2	17	12-27	mmo1/L
.....			
QC	OK		
HEM 3+	LIP 3+	ICT 0	

Run-specific information

An asterisk symbol indicates that the result is outside the reference range

The result of this analyte is suppressed due to Hemolysis

Physical interference indices

TROUBLESHOOTING REPORT

VetScan VS2				
Critical Care Plus				
08 Oct 2016	07:45 AM			
Sample Type:	Dog			
Patient ID:	12201			
Rotor Lot Number:	6283AB0			
Serial Number:	0000V27059			
.....				
01	EFEF	FFFF	8FFF	FFFF
02	CFEF	FFFF	C3FA	BEFF
03	0000	0000	0000	0000
04	0000	0000	0000	0000
05	0000	0000	8200	0000
06	0000			
ALT	189 *	0000	0003	U/L
GLU	115 *	0000	0000	mg/dL
BUN	15	0000	0000	mg/dL
CRE	0.5	0000	0000	mg/dL
NA+	146	0000	0000	mmo1/L
K+	4.4 H	0800	0000	mmo1/L
CL-	110	0000	0000	mmo1/L
tCO2	17	0000	0000	mmo1/L
.....				
RQC:	100			
HEM	305	LIP	734	ICT 0
Version:	3.1.23			

Run-specific information

Run-specific technical codes

Technical codes for suppressed values

Analyzer estimated value for the suppressed analyte with an "H" indicator for Hemolysis

Quantitative physical interference values

YES, REPORTING PHYSICAL INTERFERENCES IS BETTER MEDICINE

A result should never be reported at the expense of accuracy. The VS2 reports dependable results AND sample integrity because we believe veterinarians and their patients deserve to have all the information they need to make the right decisions.