

Improved Test Results Feature

Test Results Feature

With version 2009.3, you will see vast improvements to the way AVImark handles test results. We are excited bring you a totally new way to retrieve, store, and access results. With this new interface there will never be a need to pre-define test fields or reference ranges. AVImark will now import result values as they are received from the instrument or laboratory.

****NOTE:** Results that currently exist in Medical History More Stuff will not be affected by this update. They will still remain as they are, print on Patient Charts, and maintain the ability to graph. However, graphing results between Medical History More Stuff values along with the new test result storage format will not be possible at this time. You will be able to graph More Stuff results, and will be able to graph values in the new Tests area, but not have both data styles appear in the same graph.

Key features of this new enhancement:

- No longer required to define fields on the AVImark treatment
- No longer required to define species specific reference ranges
- No longer required to use More Stuff to store test results
- No longer limited to the number of fields/results imported
- AVImark will be able to accept data (results) in any format as they are received from the instrument or lab without the limitations of being decimal, integer, ratio, word processing, phrase, range, etc.
- Comments will import whenever supplied by the lab
- All Cultures and Sensitivities results will be imported
- Any results that are outside the normal reference range will be displayed as “out of bounds” in bold red for easier identification
- You will be able to simply select the Medical History entry in which you want to import results, and right-click, Import to bring in results from the appropriate instrument.
- The ability to access our new “Test Inbox” storage location to retrieve any results that were unable to be automatically imported to the proper patients History, so those results can be manually imported to the patient record.
- Graphing results by test or field will continue to be available in Excel or AVImark

Importing lab results:

- Find and highlight the appropriate Medical History entry.
- Select the Tests checkbox located in the Attachments list.

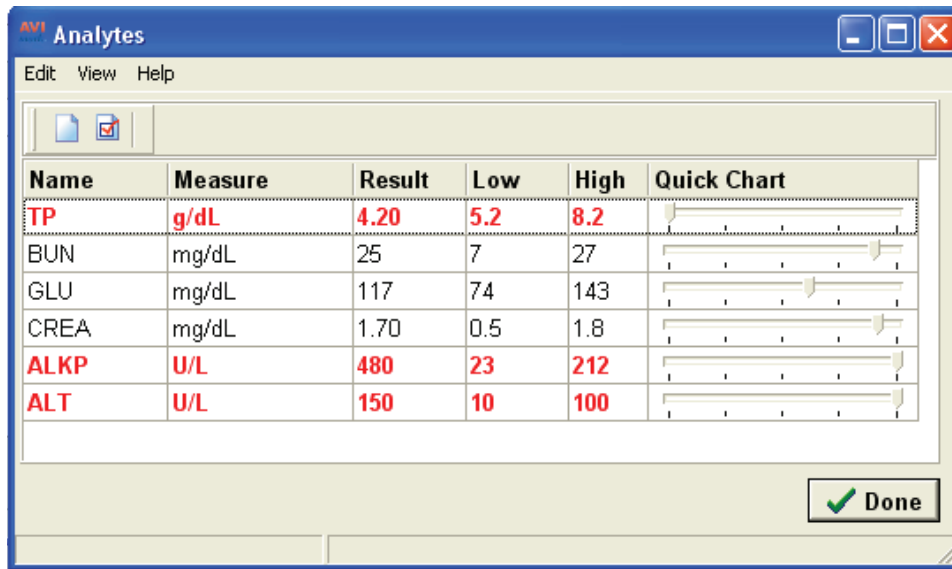
Medical History							
Date	Time	Dr.	Type	Code	Description	Qty	Amount
07-13-09	2:57p	MKC	T	LA0005	CBC/Chemistry Recheck	1	55.00

Attachments	
<input type="checkbox"/>	Dental Chart
<input type="checkbox"/>	Form
<input type="checkbox"/>	Inventory Used
<input type="checkbox"/>	Medical Condition
<input type="checkbox"/>	More Stuff
<input type="checkbox"/>	Notes
<input type="checkbox"/>	Photograph
<input type="checkbox"/>	Attachments
<input type="checkbox"/>	Vaccination
<input checked="" type="checkbox"/>	Tests
<input type="checkbox"/>	DICOM

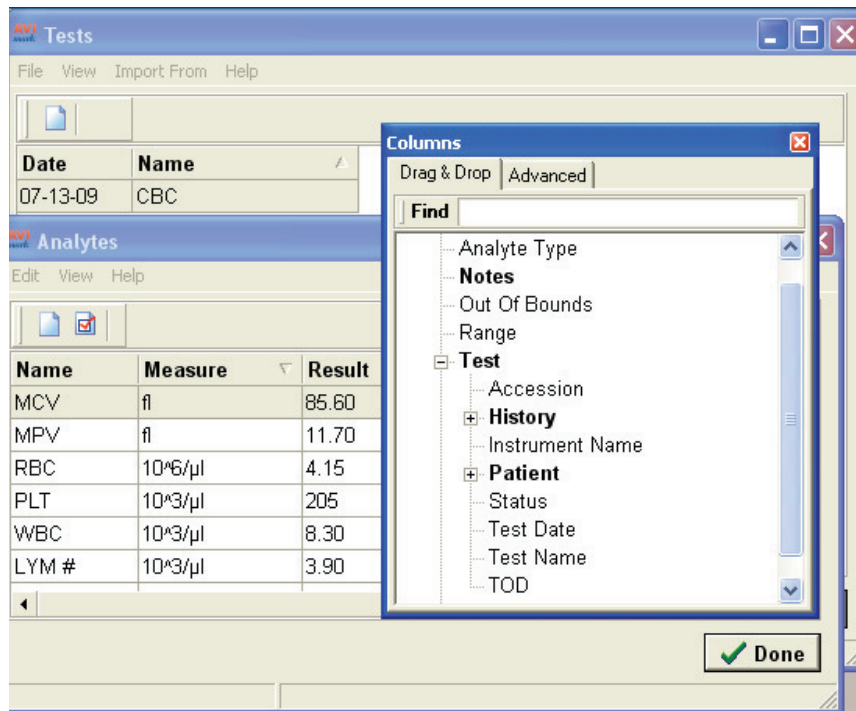
- From the Tests window, select the Import From menu.
- Choose the option that represents the lab from which you intend to transfer results.
- Import the results.
- The results will be received in any value, type, and with any notes or comments as they are sent from the lab/instrument, as well as display the normal range as dictated by the lab or instrument at the time the test was completed.
- The results will be permanently associated to this AVImark Medical History entry.
- Once imported you will be able to open, view, print, and graph the results at any time.

Viewing results:

- To view results at any time, select the Medical History entry, then select the Tests checkbox.
- You can select the entry in the Tests window that represents the set of results you wish to view, and double-left click to open the Analytes window.
- In this window you will see the Analytes, Measure, Result, Low Value, High Value, as well as a “Quick Chart” indicating where the result value falls in comparison to the High-Low range.
- If the Result value falls outside the “normal” range, the line representing the result for that analyte will be displayed in bold red.

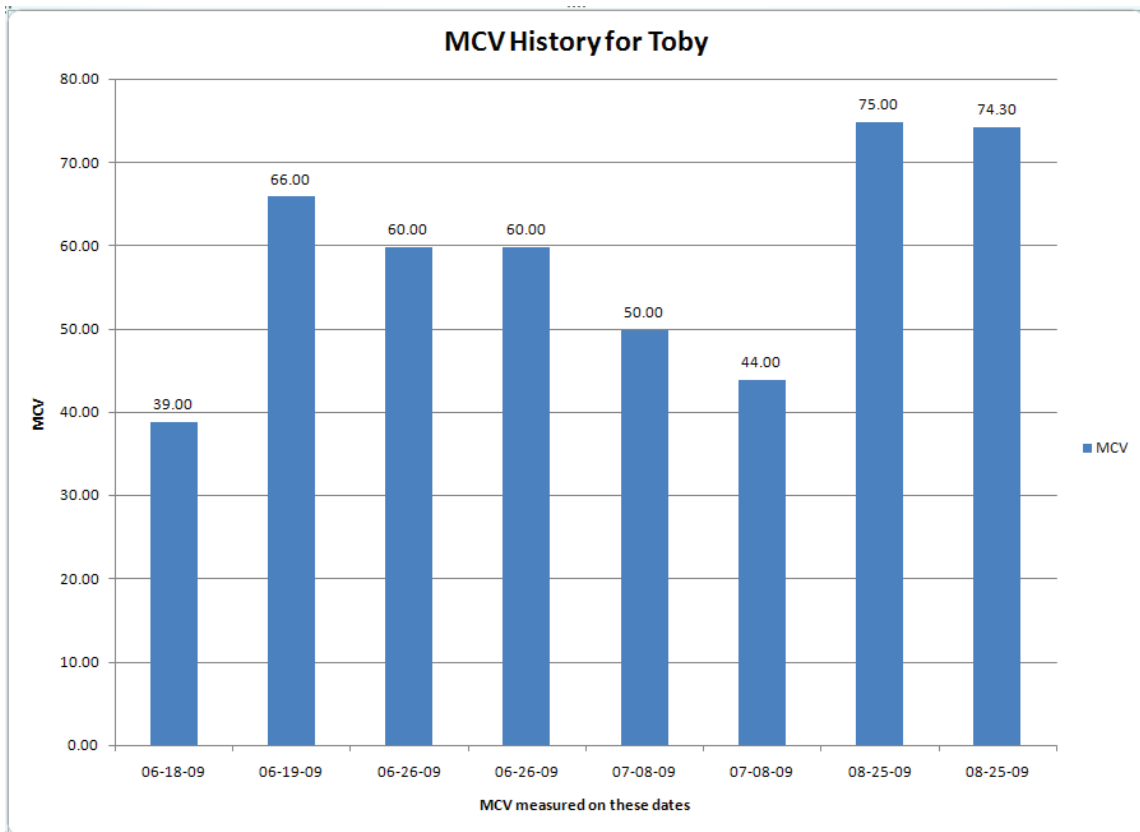
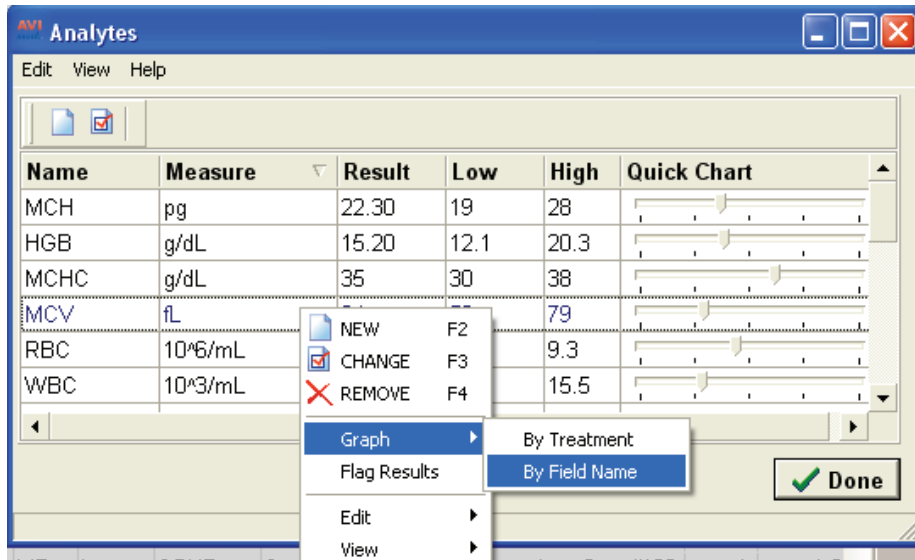


- The columns are able to be customized to the user's preference to display more or less information.



Graphing results:

- Graphing based on test or field name, is still available for integer or decimal result values using AVImark or Excel on selected analytes.



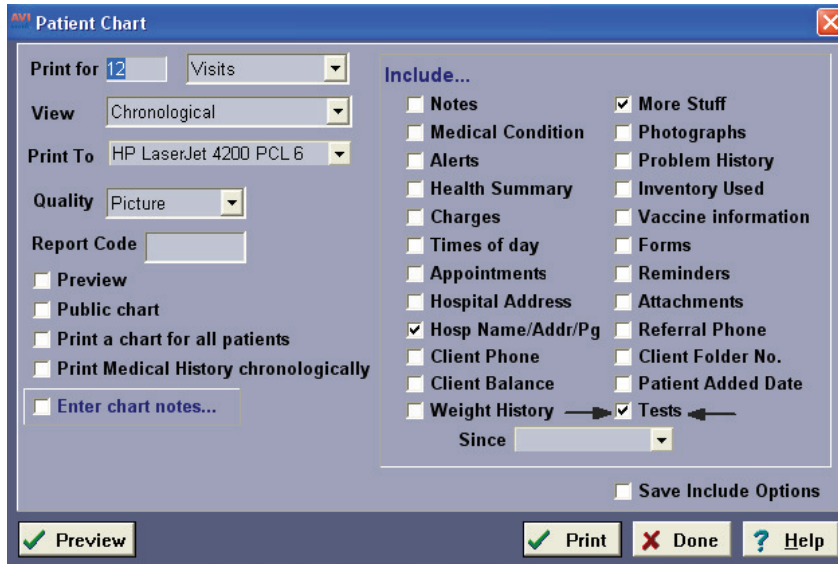
Printing results:

There are two methods for printing patient test results:

- The AVImark Patient Chart
- AVImark Results Report

Printing results with the AVImark Patient Chart

- A new option has been added to the Patient Chart area to include result data stored in the new Tests area.

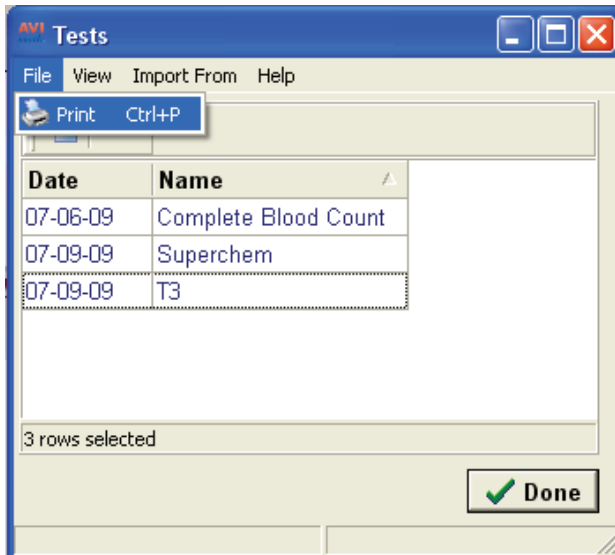


- Below is an example of how results will be displayed on the Patient Chart:

<u>MEDICAL HISTORY</u>					
Date	By	Code	Description	Qty (Variance)	
09-04-09	MZ	IVLSO	Requisition 3063-23077		
Test				Date of Test	
VetTest				09-04-09	
Analyte		Result	Low	High	
GLU		117	74	143	
ALT		150	10	100	
TP		4.20	5.2	8.2	
BUN		25	7	27	
CREA		1.70	0.5	1.8	
ALKP		480	23	212	
		LA0006	Chemistry Profile		

Printing results using the AVImark Results Report:

- From the Tests window, you can highlight the test or tests you want to report, select File, then Print, to print the Result Report.



- The generated report will display detailed patient and hospital information, as well as the owner and doctor.
- The analyte results will be sorted by test names, and each line will clearly report the analyte name, result value, normal reference range, and a horizontal box plot graph. See example below:

Patient Info:

Name: Zoey
Chart No: GetThis
Owner: Cravens, Marla
Doctor: Marla Cravens

Species: Canine
Breed: Border Collie
Age: 4Y
Sex: S

Hospital:

Marla's Test AV/Mark
 1313 Mockingbird Ln.
 Mockingbird Heights, CA 12345

Accession No.	Doctor Marla Cravens	Owner Cravens, Marla	Pet Name Zoey
Test	Results	Adult Reference Range	L Normal H
Complete Blood Count			
WBC	7.2	4.0-15.5 $10^3/\text{mL}$	
RBC	6.8	4.8-9.3 $10^6/\text{mL}$	
HGB	15.2	12.1-20.3 g/dL	
HCT	43	36-60 %	
MCV	64	58-79 fL	
MCH	22.	19-28 pg	
MCHC	35	30-38 g/dL	
Comment			
Neutrophils	69	60-77 %	
Absolute Neutrophils	4968	2060-10600 /mL	
Lymphocytes	23	12-30 %	
Absolute Lymphocytes	1656	690-4500 /mL	
Monocytes	6	3-10 %	
Absolute Monocytes	432	0-840 /mL	
Eosinophils	2	2-10 %	
Absolute Eosinophils	144	0-1200 /mL	
Basophils	0	0-1 %	
Absolute Basophils	0	0-150 /mL	
Platelet Estimate	Adequate		
Platelet Count	183	170-400 $10^3/\text{mL}$	
Superchem			
Glucose	96	70-138 mg/dL	
Urea Nitrogen	52	6-25 mg/dL	HIGH
Creatinine	1.9	0.5-1.6 mg/dL	HIGH
Total Protein	6.0	5.0-7.4 g/dL	
Albumin	3.8	2.7-4.4 g/dL	
Total Bilirubin	0.3	0.1-0.3 mg/dL	

Accession No.	Doctor Marla Cravens	Owner Cravens, Marla	Pet Name Zoey	
Test	Results	Adult Reference Range	L	Normal
Alkaline Phosphatase	106	5-131 U/L		
ALT (SGPT)	118	12-118 U/L		
AST (SGOT)	107	15-66 U/L	HIGH	
Cholesterol	158	92-324 mg/dL		
Calcium	10.6	8.9-11.4 mg/dL		
Phosphorus	6.3	2.5-6.0 mg/dL	HIGH	
Sodium	159	139-154 mEq/L	HIGH	
Potassium	4.1	3.6-5.5 mEq/L		
Chloride	114	102-120 mEq/L		
Albumin/Globulin Ratio	1.7	0.8-2.0 RATIO		
BUN/Creatinine Ratio	27	4-27 RATIO		
Globulin	2.2	1.6-3.6 g/dL		
Lipase	425	77-695 U/L		
Amylase	2077	290-1125 U/L	HIGH	
Triglycerides	86	29-291 mg/dL		
CPK	673	59-895 U/L		
GGTP	<5	1-12 U/L		
Magnesium	1.4	1.5-2.5 mEq/L	LOW	
Calculated Osmolality	327	277-311 mOsm/L	HIGH	
T3				
T3	45	45-150 ng/dL		