

Antech Feature

With AVImark version 2010.0, the entire Antech interface has undergone reconstruction. The improvements are numerous and will streamline the process from creating the lab requisition to the automatic import of results to the proper patient as well as import all result values and any comments that are associated to the record. AVImark will now be using the Zoasis Web Service for requisition processing. When a test requisition is sent through the AVImark program interface, upon test completion, the results will be automatically imported into the proper AVImark Medical History record.

Setup:

Advanced Option settings

To open to the appropriate Advanced Options, select the hammer, wrench, screwdriver icon, and type Antech in the Search field. Then make the following settings:

- Login information
 - Antech ID number
 - Password
 - Region (please contact Antech for this information)
 - User Name
 - Zoasis ID Number

**Note – If you are currently using Antech with AVImark, the Antech ID, Password, User Name, and Zoasis ID Number will already be filled in appropriately. You will only need to add the Region information.

- Antech Options
 - **Additional charges may apply for criticals. Please contact Antech for additional information.** – This option will allow users to be prompted with a warning before marking a requisition as critical by setting this to prompt. Setting it to OK, indicates the user is aware of these additional charges, and wishes to bypass the warning message.
 - **Auto Import Results on Load** – Setting this option to True will automatically locate matching Antech requisitions in AVImark and import results to those entries when results are loaded from the Requisition Management area.
 - **Auto Print Requisition Form** – will automatically print the Antech requisition at the time a requisition is created.
 - **Print Results in grayscale** – Result Reports have the option of being printed in color or grayscale
 - **Use Zoasis Web Service** – should be set to True if you wish to use the AVImark/Antech interface

Species and Breed Table information

- Species Table
 - Each species in the Species Table will need to have the corresponding Antech Species Code assigned as designated by Antech. If you need help determining the proper Antech Species Code to assign to your AVImark species, please contact Antech.
 - To assign the species code, open the Change Species window in the AVImark Species Table, and enter the appropriate Antech Species Code. This will need to be done for all species.
- Breed Table
 - To allow your current established AVImark breeds to be linked to the Antech established breed list, we have included the ability to assign a breed association between AVImark and Antech in the AVImark Breed Table. This can be set up in advance, or on the fly when creating requisitions.
 - To make your breed associations in the AVImark Breed Table, open the Change Breed window, and select the Antech breed that best represents the breed as listed in the AVImark Breed Table.
 - To make the associations “on the fly” during the requisition process, you will be presented with a message indicating you are creating a requisition for a patient that has no Antech breed assigned. Clicking OK will open a breed selection window that will allow you to make that association.

Making Laboratory Associations in the Treatment List

- In order to use this new feature, you must have the desired Antech test(s) associated to your AVImark treatment in the Treatment List. This will allow you to choose the AVImark treatment that represents the tests you wish to have processed by Antech, while placing the proper AVImark billing code into Medical History.
- In the Change Treatment window, select the Laboratory tab, and Labs subtab. You can assign the proper lab or labs for this treatment using F2 New or Right-Click New then select the appropriate lab and assign the ID. The information for this field can be found in your Antech Order Codes list, in the Antech Order Code column. If the test is a Pathology/Cytology request, place a check in the box provided. A check placed in this box will allow the proper Requisition Form to be provided for printing.

** The update process will remove the ANTECHLR.doc document assignment from all AVImark treatments that have an Antech Order Code assigned.

Creating Lab Requisitions

- Generating requisitions can be accomplished from more than one area.
 - From the Patient area:
 - Right click; select Create Requisition to display the Create Requisition window where you can make a test requisition for the patient you have selected on the AVImark CID.
 - Select Antech as your Lab Company
 - Highlight the desired test from the list provided, and hit the spacebar to make the selection(s).
 - Make your doctor selection.
 - Your selected test(s) will be added to Medical History.
 - This entry will be the entry that will receive the imported test results.
 - Creating requisitions from the Medical History area is performed using the same steps used from the Patient area by using the right click option, Create Requisition.
 - Requisitions can also be created by entering an AVImark treatment into Medical History that has been set up with the Antech Lab Company and Order Code. When the properly set up treatment is added to Medical History, the proper requisition is generated automatically.

Printing Requisitions

Set your designated default printer for Lab Requisitions. Select Utilities, Printer Setup, and select the printer you wish to use as your default requisition printer.

Your Antech requisition form will automatically prompt for printing when an Antech requisition is generated if you selected True for the Advanced Option to automatically print requisitions. If your option is set to False, you can print the requisitions from the Requisition Management area of AVImark.

To print from the Requisition Management area:

- Select Work With, Requisition Management.
- Find and highlight the requisition that represents the sample you are sending for analysis.
- Select File, Print, Print Requisition, or right-click, Print, Print Requisition, or use the Ctrl+P command.

This will print the hard coded internal Antech barcode document that represents the tests requested to be sent to the lab with the sample.

Antech Diagnostics



10727-AVI23210

Req No: 10727-AVI23210

Account ID: 75144

10-07-09

Marla's Test AVImark

1313 Mockingbird Ln.
Mockingbird Heights, CA 12345
123-456-7890

Client Number:	1163	Species:	Canine
Doctor:	Marla Cravens	Breed:	Border Collie
Owner Last Name:	Cravens	Sex:	S-Spayed Female
Owner First Name:	Marla	Age:	4Y // 4 years
Pet Name:	Zoey		

Lab USS SS S R L SL B P U UC RU F CULT RF LF ST OTHER
 Use
 Only S L U C SL P F B G AP RS BCB FSS OTHER

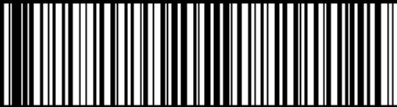
Ordered Tests

Code	Description
86111	MIC #1

An example of a Cytology/Pathology requisition can be seen below:

AVImark

Antech Diagnostics



10727-AVI23211

Req No: 10727-AVI23211

Account ID: 75144 10-07-09

Marla's Test AVImark

1313 Mockingbird Ln.
Mockingbird Heights, CA 12345
123-456-7890


Client Number:	1163	Species:	Canine
Doctor:	Marla Cravens	Breed:	Border Collie
Owner Last Name:	Cravens	Sex:	S-Spayed Female
Owner First Name:	Marla	Age:	4Y // 4 years
Pet Name:	Zoey		

Lab Use USS SS S R L SL B P U UC RU F CULT RF LF ST OTHER

Only S L U C SL P F B G AP RS BCB FSS OTHER

Ordered Tests

Code	Description
85862	Antech

<p>Container Size/Number Submitted:</p> <p>Number of Specimens Submitted: 0</p> <p>Special Stain:</p> <p>Requested Pathologists:</p> <p>Source/Site:</p> <p>Previous Biopsy/Cytology Accession:</p> <p>Type of Biopsy: Endoscopic</p> <p>All Tissues Submitted: NO</p> <p>Other Comments:</p> <p>Patient History:</p>	
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Downloading Results

Downloading results has now been fully automated. The test results will automatically be transmitted and stored to the proper AVImark Medical History record of the patient for which the test was requested when the requisition was created through AVImark. In the event that downloaded results are missing some or all of the identifying information that allow automatic transmission of results to the proper Medical History entry, the requisition and results will be accessible from the Requisition Management area of the program where they can be selected, viewed, and manually attached to the appropriate history record.

- To download and import results, select Work With, Requisition Management, click on the Download Requisitions tab, select Antech as the Lab Type, and click Load. The results will be automatically imported into the new Test Results area of AVImark's Medical History for all matched requisitions.

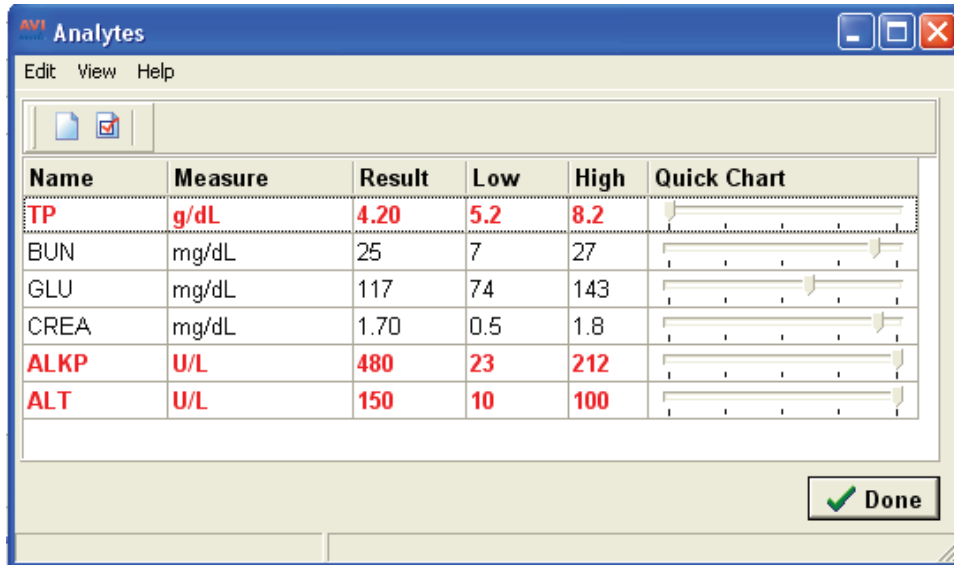
Importing Results

Results will automatically be downloaded and transmitted into the proper Medical History entry as long as all the identifying requisition information is in place. Should there be an instance where the appropriate Medical History record cannot be located or the treatment does not yet exist in the patient's Medical History, you can add the treatment, and bring in the results in one step by the following:







- Select Work With Requisition Management
- Select the Download Requisitions tab
- Select Antech from the Lab Type drop down menu, and click Load
- Locate and select the desired requisition
- Verify the lab association to each test on that requisition you wish to import.
- Right-Click each test, select the Select Lab option
- This will display the Lab Selection Form from which you can choose the AVImark treatment that represents the Antech test.
- Click OK
- Once all lab selections are set, and black in color, you are ready to right-click on the requisition and Import Results
- This will add the appropriate AVImark treatments to Medical History, as well as assign the test results to that entry

Viewing Imported 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.

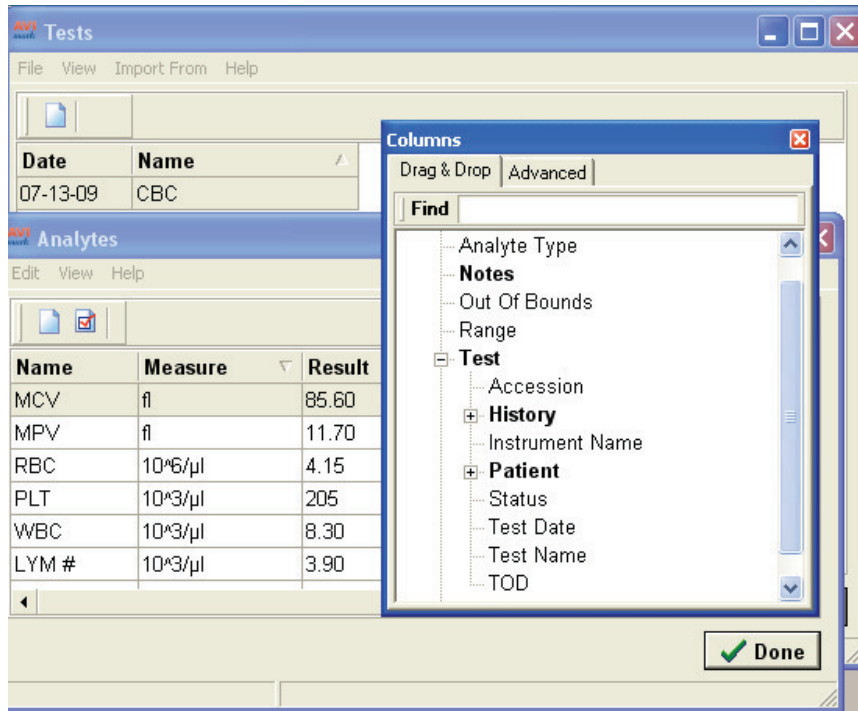


The screenshot shows a software window titled "AVI Analytes" with a menu bar (Edit, View, Help) and a toolbar. Below the toolbar is a table with the following data:

Name	Measure	Result	Low	High	Quick Chart
TP	g/dL	4.20	5.2	8.2	
BUN	mg/dL	25	7	27	
GLU	mg/dL	117	74	143	
CREA	mg/dL	1.70	0.5	1.8	
ALKP	U/L	480	23	212	
ALT	U/L	150	10	100	

At the bottom right of the window is a "Done" button with a green checkmark icon.

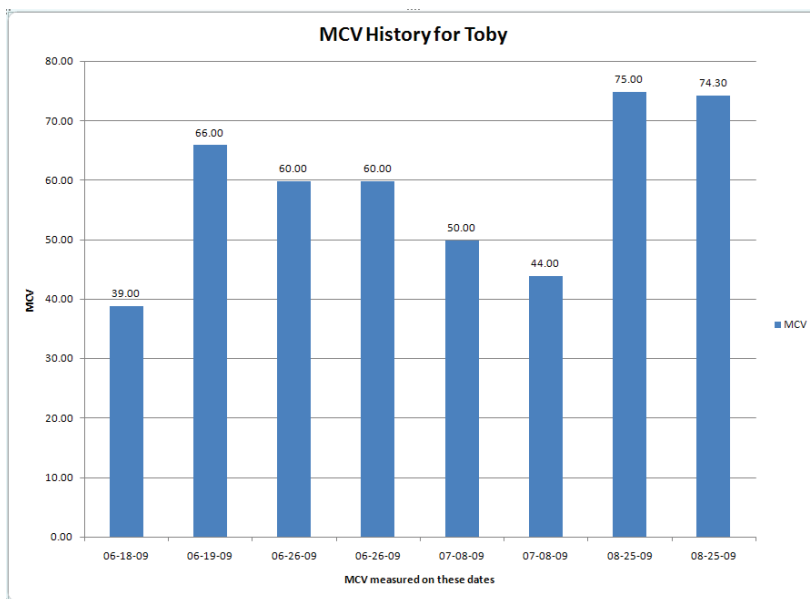
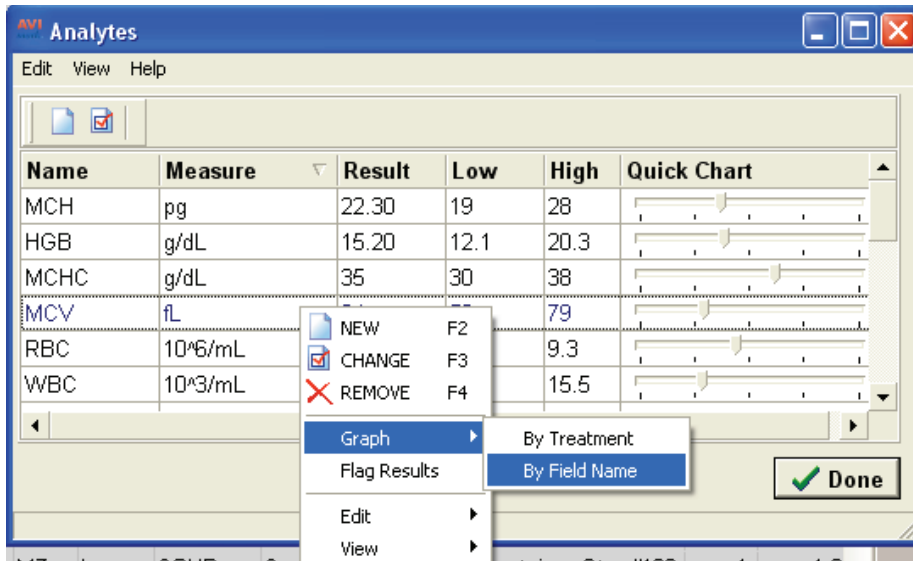
- The columns are able to be customized to the user’s preference to display more or less information.



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.

****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.



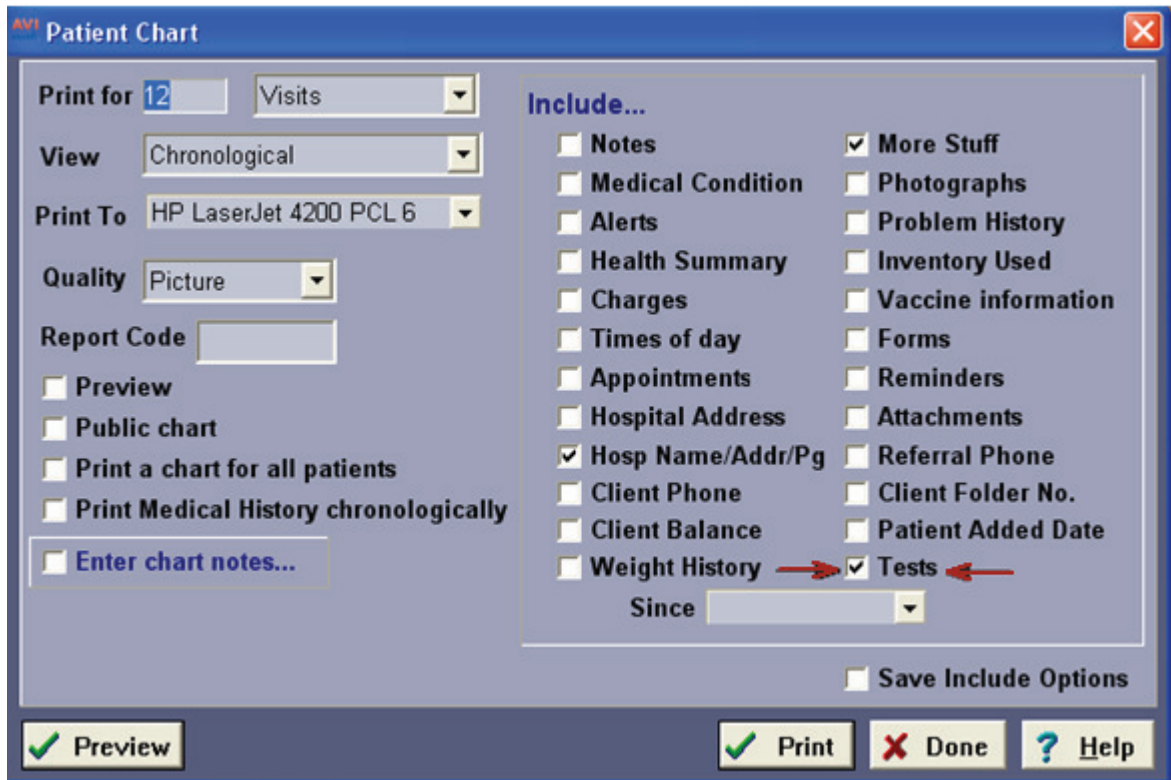
Printing results:

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:

Marla's Test AVImark
 1313 Mockingbird Ln.
 Mockingbird Heights, CA 12345
 123-456-7890

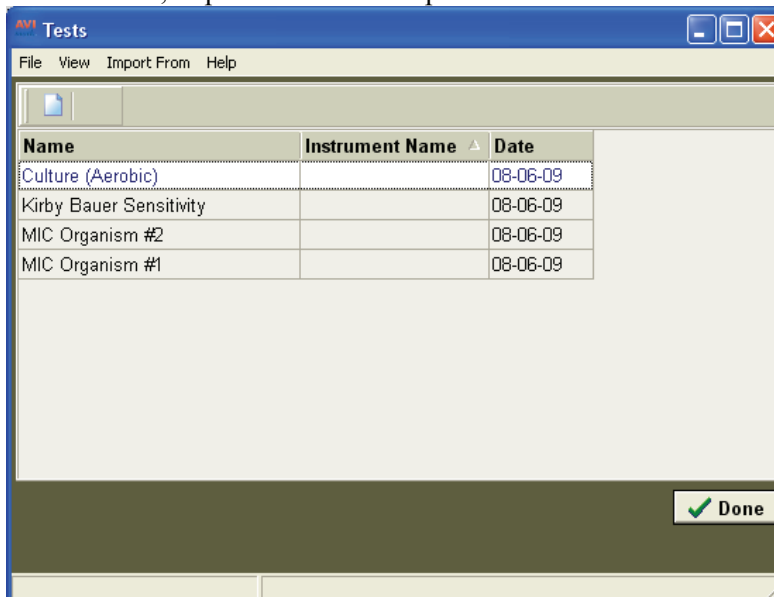
Patient Chart for Zoey
 Date: 10-07-09, Time: 6:00p

Client: Ms. Marla Cravens
 Page: 7

Date	By	Code	Description	Qty (Variance)
			Polymyxin B	
			Timentin(ticarcillin-clavul	
			Tobramycin	
			Test	
			MIC Organism #2	Date of Test 08-06-09
			Analyte	Result
			Organism #2	
			Amikacin	4 32
			Amoxicillin	<=2 2 16
			Ampicillin	<=2 2 16
			Cephadroxil	<=4 4 16
			Cefazolin	<=4 4 16
			Cefoxitin	<=4 4 16
			Cefpodoxime(Simplicef)	<=2 2 8
			Ceftiofur	<=2 2 8
			Cephalexin	<=4 4 16
			Clavamox	<=2 2 16
			Difloxacin (Dicural)	<=0.25 0.25 2
			Enrofloxacin (Baytril)	<=0.25 0.25 2
			Gentamicin	4 2 8
			Marbofloxacin (Zeniquin)	<=0.25 0.25 2
			Potentiated Sulfonamide	<=1 1 2

Printing results using the AVImark Results Report


- From the Results 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:

Page: 1

Patient Info:
Name: Zoey
Chart No: 3062
Owner: Cravens, Marla
Doctor: Marla Cravens
Species: Canine
Breed: Border Collie
Age: 4Y
Sex: S
Hospital:
 Marla's Test AVImark
 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	
MIC Organism #2	Interpretations:		1	2	3	4	5
Organism #2 Flavobacterium species							
Amikacin Amikacin: 15 mg/kg IV or SC SID		4-32 ug/ml	8				
Amoxicillin Amoxicillin: 16.5 mg/kg PO BID	<=2	2-16 ug/ml	I				
Ampicillin Ampicillin (Sodium): 22 mg/kg IV or SC BID	<=2	2-16 ug/ml	I				
Cephadroxil Cefadroxil: 22 mg/kg PO BID	<=4	4-16 ug/ml	S				
Cefazolin Cefazolin: 15 mg/kg IV or SC BID	<=4	4-16 ug/ml	S				
Cefoxitin Cefoxitin: 15 mg/kg IV or SC BID	<=4	4-16 ug/ml	S				
Cefpodoxime(Simplicef) Cefpodoxime: 5 mg/kg PO SID	<=2	2-8 ug/ml	S				
Ceftiofur Ceftiofur: 2.2 mg/kg SC SID	<=2	2-8 ug/ml					
Cephalexin Cephalexin: 22 mg/kg PO BID	<=4	4-16 ug/ml	S				
Clavamox Clavamox: 13.75 mg/kg PO BID	<=2	2-16 ug/ml	S				
Difloxacin (Dicural) Difloxacin: 5 mg/kg PO SID	<=0.25	0.25-2 ug/ml	S				
Enrofloxacin (Baytril) Enrofloxacin: 5 mg/kg PO or SC SID	<=0.25	0.25-2 ug/ml	S				
Gentamicin Gentamicin: 6 mg/kg IV or SC SID	4	2-8 ug/ml	S				

Patient Info:

Name: Zoey
Chart No: 3062
Owner: Cravens, Marla
Doctor: Marla Cravens

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

Hospital:

Marla's Test AVImark
 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	13	4.0-15.5 $10^3/\mu\text{L}$			
RBC	7.9	4.8-9.3 $10^6/\mu\text{L}$			
HGB	18.1	12.1-20.3 g/dL			
HCT	52	36-60 %			
MCV	66	58-79 fL			
MCH	23	19-28 pg			
MCHC	35	30-38 g/dL			
Comment					
Neutrophils	65	60-77 %			
Absolute Neutrophils	8450	2060-10600 $/\mu\text{L}$			
Lymphocytes	28	12-30 %			
Absolute Lymphocytes	3640	690-4500 $/\mu\text{L}$			
Monocytes	4	3-10 %			
Absolute Monocytes	520	0-840 $/\mu\text{L}$			
Eosinophils	2	2-10 %			
Absolute Eosinophils	260	0-1200 $/\mu\text{L}$			
Basophils	1	0-1 %			
Absolute Basophils	130	0-150 $/\mu\text{L}$			
Platelet Estimate	Increased				
Platelet Count	559	170-400 $10^3/\mu\text{L}$	HIGH		

Special Features of the Requisition Management area :

The Requisition Management area is centralized location to monitor, control, access, download, and view lab results from many AVImark labs; containing in-house and reference laboratory information.

There are two main areas of Requisition Management –

- The Requisitions tab
 - This tab contains status information on all laboratory requisitions. From this tab you can select the lab(s) and date range for any lab requisition information. You can collect detailed requisition information regarding patient, created date, Lab Company, status, etc. This area allows for column customization so the information pertinent to your clinic operation will be clearly displayed.

- Download Requisitions tab
 - From this tab, you will select the Lab Type, and click Load.
 - This will poll the Antech/Zoasis site for any lab results for your hospital and display them.
 - If the requisition is matched to an AVImark Medical History entry, the results will be automatically downloaded directly to that entry and will not be displayed in this window.
 - The top pane will display the Created date, requisition ID, Patient, Lab Company, and Accession ID.
 - When a requisition is selected in the top pane, the tests associated to that requisition will be displayed in the lower pane. This will display the Test ID, Test Description, Test Status, and Imported Status. This area also offers column customization to better suit your hospital needs.

Requisition Management

File Edit View Help

Requisitions Download Requisitions

Lab Type: Antech Load

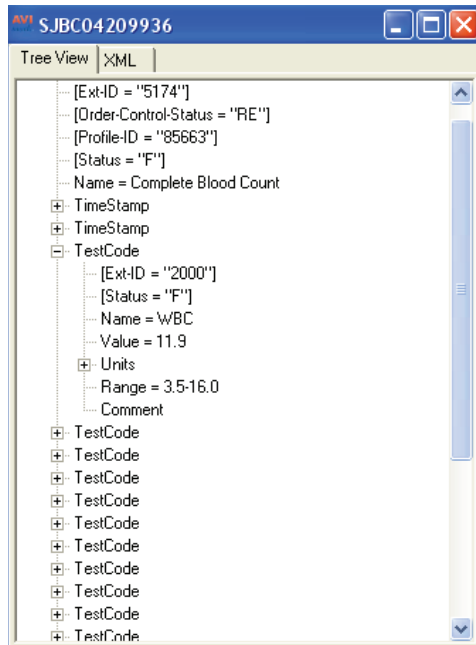
Created Date	Requisition ID	Patient	Lab Company	Accession ID
07/29/09	IRB05901007		Antech	IRB05901007
07/30/09	IRB05914111		Antech	IRB05914111
07/20/09	IRB059510513		Antech	IRB059510513
07/09/09	IRB059063725		Antech	IRB059063725
07/23/09	IRB059639094		Antech	IRB059639094
10/06/09	IRB062578745		Antech	IRB062578745
10/06/09	IRB062573604		Antech	IRB062573604
10/05/09	IRB062533012		Antech	IRB062533012
10/06/09	SJUC04209010		Antech	SJUC04209010
10/06/09	SJRC04200945		Antech	SJRC04200945
10/06/09	SJUC04209776		Antech	SJUC04209776
10/06/09	SJRC04211415		Antech	SJRC04211415
10/06/09	SJUC04211406		Antech	SJUC04211406
10/06/09	F.R.1427099	T.H.	Antech	F.R.1427099
10/06/09	SJUC04210015		Antech	SJUC04210015
10/06/09	IRB062578247		Antech	IRB062578247

ID	Description	Status	Imported Status
SA01	Specimen	Final	un-imported
FLA	Urnible Allocation	not	not imported
T4F	T4	Final	un-imported
FLA	Urnible Allocation	not	not imported

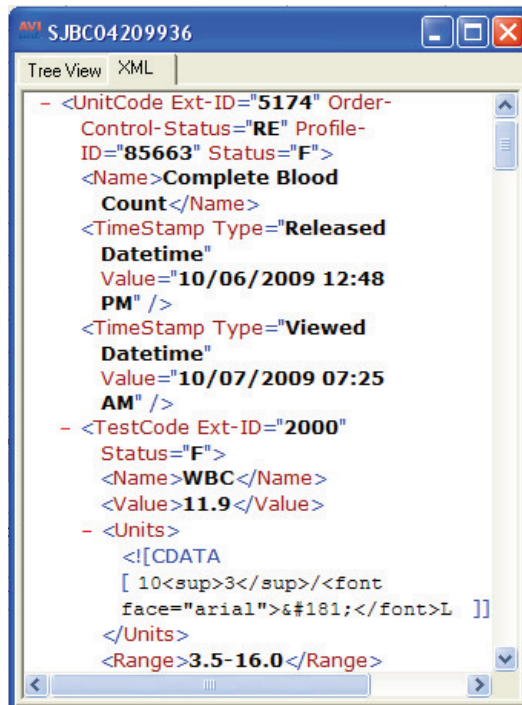
Un-assigned
 Final
 Final Disagreed

Done

- From this tab you can also view results, view imported results, and import results.
- When you select the right-click option to View Results, you will be presented with two tabs. Tree View and XML. The Tree View will display the results as shown below:



When you select XML, you will see the results displayed in XML format as shown below:



- Tests showing in blue in the bottom pane indicate that the lab is unassigned for that test. You are able to make the lab assignment without leaving this window, by right-clicking on the test showing in blue, and select Select Lab. This will present you with a list of AVImark treatments that have this Antech Test ID assigned. Make your selection of the AVImark treatment that represents the test, and click OK. This will turn the test black and indicate readiness to be imported to a patient record.

****Important NOTE:** Only tests showing in black can be imported to a patient record. You can import a test at a time from the bottom pane by right-clicking on the appropriate test, and selecting Import Results. Or, you may choose to import all tests on the requisition at one time by highlighting the requisition in the top pane, and right-clicking and selecting Import Results. However, only those tests that were displayed in black, indicating lab association will be imported. The requisition will remain on this tab until all tests on that requisition have been imported.

- Once all tests have been imported to a patient record, the requisition will be removed from the Requisition Management window.