XDx
EXPRESSION DIAGNOSTICS

October 13th, 2008

Dear Doctor,

Available since January, 2005 as a Laboratory Developed Test (LDT) performed in the XDx CLIA certified Laboratory, the AlloMap Test attained FDA clearance on August 26th, 2008 for use as an in vitro diagnostic medical device. The AlloMap Test is the first US based In Vitro Diagnostic Multivariate Index Assay (IVDMIA) device to attain such clearance for transplant management.

The following are AlloMap Test Frequently Asked Questions (FAQ's) to provide a bridge between the claims and indications for use cleared by FDA and peer reviewed literature and advertising/promotional materials that existed prior to clearance.

Has the test changed?

The AlloMap Test has not changed. It still consists of 11 informative genes and 9 genes for normalization and standardization and utilizes the same algorithm developed and originally validated for use.

What are the FDA cleared "Indications for Use"?

The AlloMap Test has been cleared for the following indications for use:

AlloMap Molecular Expression Testing is an In Vitro Diagnostic Multivariate Index Assay (IVDMIA) test service, performed in a single laboratory, assessing the gene expression profile of RNA isolated from peripheral blood mononuclear cells (PBMC). AlloMap Testing is intended to aid in the identification of heart transplant recipients with stable allograft function who have a low probability of moderate/severe acute cellular rejection (ACR) at the time of testing in conjunction with standard clinical assessment.

The test will still be indicated in patients

- ≥15 yrs old, and
- >2 months (≥55 days) post-transplant.

Further information on the AlloMap Test can be found in the FDA Decision Summary accessed via the following FDA website: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm?IVDProducts=on

What is different?

The original table (See Table 1a) contained the negative predictive values (NPV's) and positive predictive values (PPV's) for three different time periods and was based on the data utilized for the original 2005 launch. The new table (See Table 1b) continues to provide both NPV's and PPV's, however these are now based on a subset of the original CARGO data. This dataset represents patient samples used to independently validate final performance of the AlloMap Test and support the Indications for Use statement. In addition, this table also includes standard errors, expressed as a percentage, and defines the NPV's and PPV's in 2 time periods, rather the original 3 time periods reflecting current clinical practice and experience gained since 2005.

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Table 1a: Original* Clinical Performance Characteristics of AlloMap Testing

AlloMap Score	>2 – 6 months (n=350 samples)			>6 – 12 months (n=239 samples)			>12 months (n=111 samples)			AlloMap Score
	Percent of Pts Below	PPV ≥3A(2R) (%)	NPV <3A(2R) (%)	Percent of Pts Below	PPV ≥3A(2R) (%)	NPV <3A(2R) (%)	Percent of Pts Below	PPV ≥3A(2R) (%)	NPV <3A(2R) (%)	
≤19	≤17.4	≤4.2	100	≤6.1	≤3.3	100	≤2.6	2.3	100	19
20	19.4	4.3	100	9.3	3.4	100	5.2	2.4	100	20
21	26.9	4.1	98.9	10.6	3.5	100	7.5	2.4	100	21
22	31.1	4.4	99.0	11.5	3.5	100	9.8	2.5	100	22
23	35.5	4.7	99.1	16.1	3.7	100	12.4	2.6	100	23
24	41.3	5.1	99.3	20.1	3.9	100	18.0	2.8	100	24
25	47.5	5.7	99.3	23.5	4.1	100	19.3	2.8	100	25
26	52.3	5.9	99.1	28.4	4.4	100	25.3	3.0	100	26
27	56.5	5.9	98.9	34.1	3.9	98.2	29.6	2.9	99.3	27
28	61.8	6.2	98.8	41.6	3.9	98.6	36.6	3.2	99.4	28
29	67.7	6.0	98.6	45.7	3.6	98.7	42.5	3.5	99.5	29
30	72.2	7.0	98.7	56.3	3.2	98.4	49.2	4.0	99.6	30
31	77.1	6.6	98.4	61.1	3.6	98.5	56.8	4.7	99.6	31
32	83.0	6.3	98.2	67.9	3.5	98.2	68.1	5.5	99.4	32
33	87.5	6.9	98.1	74.9	4.5	98.4	73.4	5.7	99.4	33
34	90.7	9.3	98.1	82.0	4.7	98.5	77.7	5.6	99.2	34
35	93.9	10.6	98.0	87.4	4.5	98.3	83.7	6.2	99.0	35
36	97.4	16.5	98.0	92.5	7.5	98.4	87.6	6.1	98.8	36
37	98.4	26.3	98.0	96.9	—	97.8	92.3	9.9	98.8	37
38	99.8	—	97.7	98.7	—	97.9	96.0	6.3	98.4	38
39	100	—	97.7	99.1	—	97.9	96.9	—	98.5	39

*CARGO data used for the January 2005 launch

Table 1b: Updated* Clinical Performance Characteristics.

AlloMap Score	>2 – 6 months (n=166 samples)					>6 months (n=134 samples)					AlloMap Score
	% Pts Below	PPV ≥3A(2R)	PPV Std. Err.	NPV <3A(2R)	NPV Std. Err.	% Pts Below	PPV ≥3A(2R)	PPV Std. Err.	NPV <3A(2R)	NPV Std. Err.	
≤19	<22.4	≤2.7%	≤0.1%	**100.0%**	0.0%	≤5.4	≤1.8%	0.0%	**100.0%**	0.0%	**≤19**
20	24.3%	2.6%	0.2%	**100.0%**	0.0%	6.1%	1.8%	0.1%	**100.0%**	0.0%	**20**
21	33.5%	2.5%	0.4%	**98.8%**	0.8%	9.8%	1.9%	0.1%	**100.0%**	0.0%	**21**
22	38.8%	2.7%	0.5%	**98.9%**	0.7%	11.0%	1.9%	0.1%	**100.0%**	0.0%	**22**
23	41.8%	2.9%	0.5%	**99.0%**	0.6%	14.1%	2.0%	0.1%	**100.0%**	0.0%	**23**
24	47.5%	3.2%	0.6%	**99.1%**	0.6%	18.4%	2.1%	0.1%	**100.0%**	0.0%	**24**
25	56.0%	3.6%	0.7%	**99.3%**	0.5%	22.1%	2.2%	0.1%	**100.0%**	0.0%	**25**
26	61.4%	3.8%	0.9%	**99.0%**	0.5%	26.8%	2.3%	0.1%	**100.0%**	0.0%	**26**
27	63.9%	3.4%	1.0%	**98.7%**	0.5%	31.6%	1.9%	0.4%	**98.7%**	0.9%	**27**
28	68.3%	3.3%	1.1%	**98.5%**	0.5%	35.1%	2.1%	0.5%	**98.9%**	0.7%	**28**
29	73.7%	4.0%	1.3%	**98.6%**	0.4%	40.8%	2.1%	0.5%	**99.0%**	0.7%	**29**
30	77.2%	4.0%	1.6%	**98.6%**	0.4%	50.6%	2.1%	0.6%	**98.7%**	0.6%	**30**
31	81.0%	3.3%	1.6%	**98.2%**	0.4%	54.1%	2.3%	0.7%	**98.8%**	0.6%	**31**
32	85.5%	2.9%	2.0%	**98.0%**	0.3%	63.1%	2.9%	0.9%	**99.0%**	0.5%	**32**
33	89.4%	4.0%	2.7%	**98.1%**	0.3%	72.4%	3.8%	1.3%	**99.1%**	0.4%	**33**
34	91.7%	5.0%	3.5%	**98.2%**	0.3%	76.1%	4.1%	1.7%	**98.9%**	0.4%	**34**
35	94.5%	5.7%	4.8%	**98.1%**	0.2%	84.1%	4.0%	2.2%	**98.7%**	0.4%	**35**
36	97.3%	7.6%	13.8%	**98.1%**	0.2%	90.2%	5.4%	3.2%	**98.7%**	0.3%	**36**
37	97.8%	9.5%	21.1%	**98.1%**	0.2%	91.7%	—	-	**98.4%**	0.2%	**37**
38	100.0%	—	-	**97.9%**	0.0%	96.5%	—	-	**98.2%**	0.0%	**38**
39	100.0%	—	-	**97.9%**	0.0%	97.7%	—	-	**98.3%**	0.0%	**39**

*Subset of CARGO dataset supporting the Indications for Use statement

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Where can I find additional information?
http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm?IVDProducts=on
www.xdx.com
www.allomap.com

We hope that these FAQ's have provided sufficient background information to address any questions that might have arisen as we transition from a purely CLIA environment into one that is also compliant with FDA device regulations. Should there be any additional questions, please call 1-800-ALLOMAP (1-888-255-6627).

Sincerely,

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