

Director: Dr MT Rees
Manager: Mrs D Pritchard

Tel: +44 (0) 1443 622185
Fax: +44 (0) 1443 622001
Email: ukneqashandi@wales.nhs.uk

Correspondence to:
UK NEQAS for H&I
Welsh Blood Service
Ely Valley Road
Talbot Green
Pontyclun CF72 9WB

Educational Crossmatching Scheme

Dispatched on the 21st February 2017

Summary of Results

A total of 35 reports were received, but not all labs reported results for all tests.

Consensus HLA Type of whole blood donor sample EDXM 01/2017:

	A*	B*	C*	DRB1*	DRB3*	DRB5*	DQA1*	DQB1*	DPA1*	DPB1*
	03	07	07	03	01	01	01	02	01	04:01
	32	08	-	15	-	-	05	06	-	04:02
Number of reports	34	34	33	34	17	17	25	34	13	22 ¹
% Labs in consensus	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

¹ These figures exclude an additional three laboratories that did not report DPB1* at the second field level

EDXM 01 Serum 1/2017 Results

(Serum sourced from moderately sensitised parous female)

HLA Antibody Detection and Definition

(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	Positive	32	100%	Positive	32	100%
	IgM	Negative	7	85.7%	Negative	6	100%
Definition ¹	Total Number of Specificities Reported (by ≥ 1 lab)	26			15		
	Number of Specificities Absent (reported by < 5% labs)	12			2		
	Number of Specificities Present (reported by ≥ 75% labs)	8			5		
	MFI >10000	Cw2, Cw5, Cw6, Cw15, Cw17, Cw18	34	94.1% - 97.1%	DR4	34	94.1%
	MFI 5000 - 9999	Cw4		97.1%	DQ7, DQ8, DQ9		91.2% - 100%
	MFI 3000 - 4999	N/A		N/A	N/A		N/A
	MFI 1500 - 2999	Cw8		97.1%	DR1		76.5%

¹ 75% consensus 'present' specificities are displayed within the MFI value range reported by the majority of participants

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Crossmatching
(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		T Cells		B Cells		T Cells	B Cells
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Number of reports	8	8	17	15	17	16	26	24
% Labs in consensus	87.5%	87.5%	100%	100%	100%	100%	96.2%	95.8%

Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants	MFIs Reported
A32	1 (3%)	480
A3 (IgM)	1 (3%)	1419
A32 (IgM)	1 (3%)	1631

If the potential donor was a potential live kidney donor:

	<i>The most common responses included:</i>
Interpretation based on results	<ul style="list-style-type: none"> Negative CDC crossmatch Negative T and B cell FCXM Patient is sensitised, but no donor specific antibodies detected
Assigned risk	Low n = 25 (%) Medium n = 8 (%)
Immunological advice	<ul style="list-style-type: none"> Perform post-transplant monitoring Standard immunosuppression protocol Induction treatment as sensitised patient
If advice is not to transplant, recommendations for future transplants	N/A – advise to transplant

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EDXM 01 Serum 2/2017 Results

(Serum sourced from female, non-transfused, blood group AB blood donor)

HLA Antibody Detection and Definition

(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	Negative	32	96.9%	Negative	28/32	87.5%
	IgM	Negative	7	100%	Negative	6/6	100%
Definition	Total Number of Specificities Reported (by ≥ 1 lab)	2			15		
	Number of Specificities Absent (reported by < 5% labs)	2			2		
	Number of Specificities Present (reported by ≥ 75% labs)	0			5		
		No specificities reported	34	97.1%	No specificities reported	34	85.3%

Crossmatching Results

(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		T Cells		B Cells		T Cells	B Cells
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Number of reports	8	8	17	15	18	16	26	24
% Labs in consensus	75.0%	75.0%	100%	100%	100%	100%	100%	100%

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Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants
No DSA	33 (100%)

If the potential donor was a potential live kidney donor:

	<i>The most common responses included:</i>				
Interpretation based on results	<ul style="list-style-type: none"> Negative CDC and flow crossmatches Unsensitised patient No DSA detected Compatible - suitable for transplantation 				
Assigned risk	<table> <tr> <td>Low</td> <td>n = 32 (97.0%)</td> </tr> <tr> <td>Medium</td> <td>n = 1 (3.0%)</td> </tr> </table>	Low	n = 32 (97.0%)	Medium	n = 1 (3.0%)
Low	n = 32 (97.0%)				
Medium	n = 1 (3.0%)				
Immunological advice	<ul style="list-style-type: none"> Standard immunosuppression protocol. Routine post transplant monitoring for de novo DSA Post transplant antibody testing if indication of AMR Consider match grade and age of patient 				
If advice is not to transplant, recommendations for future transplants	<ul style="list-style-type: none"> N/A – advise to transplant 				

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EDXM 02 Serum 3/2016 Results

(Serum sourced from highly sensitised female, multi-parous female)

HLA Antibody Detection and Definition

(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	Positive	22	72.7%	Positive	22	100%
	IgM	Negative	8	75.0%	Negative	7	85.7%
Definition ¹	Total Number of Specificities Reported (by ≥ 1 lab)	27			42		
	Number of Specificities Absent (reported by < 5% labs)	10			6		
	Number of Specificities Present (reported by ≥ 75% labs)	0			13		
	MFI >10000	No class I specificities reached 75% consensus	34	N/A	DQ2	34	100%
	MFI 5000 - 9999			N/A	DQ7, DQ8 DPB1*05:01 DPB1*06:01 DPB1*14:01 DPB1*17:01		76.5% - 85.3%
	MFI 3000-4999			N/A	DQ9, DPB1*03:01. DPB1*11:01 DPB1*13:01 DPB1*14:01 DPB1*19:01 DPB1*20:01		79.4% - 88.2%

¹ 75% consensus 'present' specificities are displayed within the MFI value range reported by the **majority** of participants

Crossmatching

(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		T Cells		B Cells		T Cells	B Cells
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	No Consensus	Negative	No Consensus	Negative	Positive	No Consensus	Negative	Positive
Number of reports	8	8	17	15	16	14	26	22
% Labs in consensus	50.0%	75.0%	70.6%	93.3%	93.8%	71.4%	76.9%	77.3%

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Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants	Range of MFIs Reported
DQ2	32 (97.0%)	1480 - 19337
B8	19 (57.6%)	599 - 5969
A3	16 (48.5%)	380 - 2416
B7	7 (21.2%)	531 - 1907
DR17	5 (15.2%)	683 - 1100
DQA1*05	6 (18.2)	3019 - 14926
DQA1*01	1 (3.0%)	1979
A32	1 (3.0%)	600

If the potential donor was a potential live kidney donor:

	<i>The most common responses included:</i>
Interpretation based on results	<ul style="list-style-type: none"> Positive B-cell CDC and flow crossmatches High MFI DSA
Assigned risk	Contraindication n = 18 (56.3%) High Risk n = 7 (21.9%) Medium risk n = 7 (21.9%)
Immunological advice	<ul style="list-style-type: none"> Immunological high risk transplant Do not proceed with transplant Antibody reduction protocol and enhanced immunosuppression If transplant proceeds, post-transplant DSA monitoring Repeat crossmatches
If advice is not to transplant, recommendations for future transplants	<ul style="list-style-type: none"> Approach alternative living donor/family member Register on deceased donor waiting list Enter into paired/pooled scheme Consider HLAi transplant and desensitisation with current donor Register/review 'unacceptable antigens'