UK NEQAS
International Quality Expertise

Histocompatibility & Immunogenetics

UK NEQAS FOR HISTOCOMPATIBILITY AND IMMUNOGENETICS' 'STANDARD METHOD' EXERCISE FOR CDC CROSSMATCHING

Melanie Bartley, Felicity May, Tracey Rees, Deborah Singleton & Christopher Darke

Introduction

For several years UK NEQAS for H&I have highlighted considerable variation in CDC XM methodology used by laboratories in the UK & Ireland for its Cytotoxic Crossmatching Scheme 2A. In 2014, 17.5% (28/160) of CDC XM tests were excluded from assessment for UK & Ireland participants as tests failing a 75% positive/negative consensus are not used.

Methodology

We determined if a 'standard method' would improve the number of tests reaching consensus. This method is based on that most commonly used by participants.

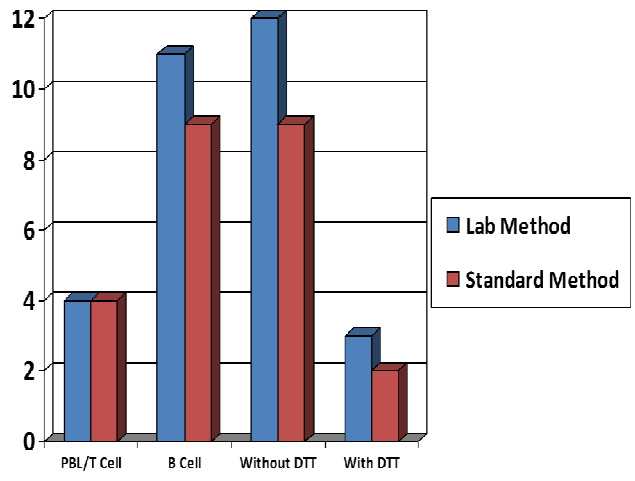
'Standardised'	Not Standardised
Incubation Time (60 minutes pre & post C')	Complement (15/16 labs used Cedarlane)
Temperature (room temperature)	
Cell : Serum Ratio (1µl : 1µl)	

This 'standard method' was evaluated in parallel with six usual Scheme 2A samples (2A03-2A08/15). 96 cell/serum combinations were analysed.

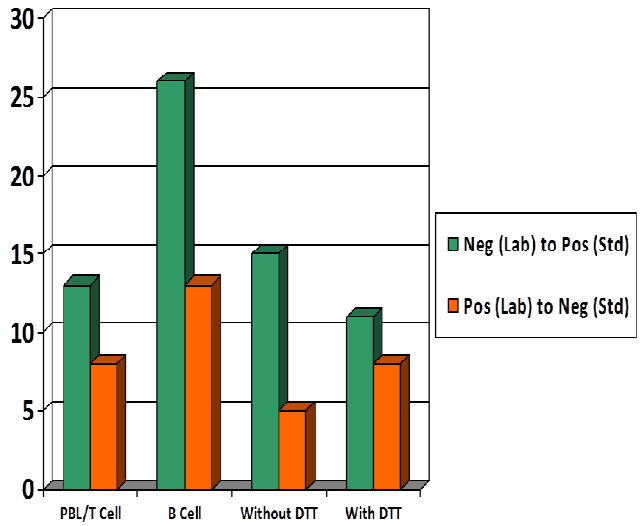
Results

When laboratories used their own method 15.6% of tests failed to reach consensus compared to 13.5% using the 'standard method' (p=0.7)

Number of results that FAILED to reach consensus:



Number of individual laboratory results changing from negative to positive, or positive to negative between methods:



In total, negative results changed to positive in 65% of reactions; positive results changed to negative in 35% of reactions.

For each set of 96 tests the number of laboratories reporting a consensus results with their own method was compared with their 'standard method's' result.

The consensus percentage remained unchanged in 51% of tests, improved in 22.9% and reduced in 26%.

Comment

The 'standardisation' of Scheme 2A's CDC XM method did not significantly improve consensus results.

Clearly, eliminating variables between laboratories cannot solely be resolved using a 'standard method' as many other factors contribute to differences between laboratories.

Further Information

Full information on all UK NEQAS for H&I Schemes is available at *www.neqashandi.org.uk* or contact the Scheme Manager at *ukneqashandi@wales.nhs.uk*

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