

## PRELIMINARY EVALUATION OF THE CHORUS SYSTEM FOR THE ANALYSIS OF ANTI-RUBELLA IgG and IgM

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### INTRODUCTION

The determination of IgG and IgM antibody is performed routinely for the evaluation of the immune state of pregnant women. Such antibody research is performed in our laboratory by means the VIDAS system with ELFA method for IgG class, and by means of the DIESSE Diagnostica Senese S.p.A. ELISA  $\mu$ -capture method (Enzywell Rubella IgM) for IgM class. In the table here below are reported the interpretative criteria of systems comparison.

IgM	CHORUS	ENZYWELL
Negative	< 0,8	< 0,8
Doubtful	$0,8 \leq \text{index} \leq 1,2$	$0,8 \leq \% \leq 1,2$
Positive	> 1,2	$\geq 1,2$

Interpretative criteria of systems comparison for the determination of IgM

IgG	CHORUS	VIDAS
Negative	< 8 UI/mL	< 10 UI/mL
Doubtful	$8 \leq \text{UI/mL} \leq 12$	$10 \leq \text{UI/mL} < 15$
Positive	$\geq 12 \text{ UI/mL}$	$\geq 15 \text{ UI/mL}$

criteria of systems comparison for the determination of IgG

### MATERIALS AND METHODS

124 routine samples were tested with the aim of evaluating the agreement of Chorus Rubella IgG and Chorus Rubella IgM with VIDAS test Rubella IgG and Enzywell Rubella IgM respectively.

### RESULTS

#### Determination Anti-Rubella IgG :

Out of 124 samples, 123 showed results in agreement between the two diagnostic systems (99,2%); in particular, 111 samples resulted positive and 12 negative. The discrepant sample resulted negative with VIDAS (3,0 UI/mL) and doubtful (8,3 UI/mL) with the Chorus system.

VIDAS	CHORUS	Positive	Negative	Doubtful
	Positive		111	
Negative			12	
Doubtful				1

#### Determination Anti-Rubella IgM :

Out of 124 samples, 120 showed results in agreement between the two diagnostic systems (96,8%). In particular, 111 samples resulted negative, 8 positive and 1 doubtful. As to what concerns the disagreeing results, in two cases they resulted negative with the Chorus system and doubtful with the Enzywell kit, 1 positive result (index 2,2) for Chorus and doubtful in microplate, and one doubtful result for Chorus and positive (index 1,7) in microplate.

ENZYWELL	<i>CHORUS</i>	<i>Positive</i>	<i>Negative</i>	<i>Doubtful</i>
	Positive		8	
Negative			111	
Doubtful		1	2	1

**CONCLUSIONS**

In conclusion, the Chorus instrument provides results of good agreement with the ones obtained with the ones obtained with the diagnostic systems used in our laboratory. The mono test package proves useful since it allows a more flexible management of samples than the one provided for by the microplate ELISA.