

Department of Infectious, Parasitic and Immunomediated Diseases Unit of Gastroenteric and Tissue Parasitic Diseases Istituto Superiore di Sanità



Final report PT-Tm 1/2015

PT "Identification of *Trichinella* larvae at the species level by a molecular method"

Design

Purpose	Evaluation of laboratories in charge for official control on food		
Scheme type	Single		
Participants	Public and private, European laboratories		
N. of participants	Depending on request		
Method	not regulated		
Test method	chosen by the participant		
	Matrix	not applicable	
DT its and	Item	Trichinella spp. larvae in 96% ethanol	
PT items	N. of samples	4 (10 larvae/each) or 12 (1 larva/each) 1.5 ml vials for each participant	
	Distribution	Immediate shipment after preparation	
Subcontracted activities	PT item transport and delivery		
Results evaluation	Qualitative		

Implementation

N. of participants	17	PT items	PT panel 4 vials	11
Public laboratories	0			
Private laboratories	0		PT panel 12 vials	7
NRLs	17		Subcontractor	TNT Express
Shipping dates	16/03/201	5		

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Qualitative results

The PT final evaluation was qualitative only. The PT was considered passed when all isolates or, in case of single larvae at least one of them for each isolate, are correctly identified.

Laboratory code	N. right identification	N. wrong identification	N. missed identification	Final evaluation
NRL1	12	0	0	positive
NRL3	12	0	0	positive
NRL6	3	0	1	negative
NRL7	12	0	0	positive
NRL8	4	0	0	positive
NRL10	12	0	0	positive
NRL12	11	0	1	positive
NRL16	4	0	0	positive
NRL17	4	0	0	positive
NRL21	4	0	0	positive
NRL22	12	0	0	positive
NRL23	4	0	0	positive
NRL24	12	0	0	positive
NRL25	4	0	0	positive
NRL34	4	0	0	positive
NRL35	4	0	0	positive
NRL45	4	0	4	negative

Legend:

Laboratories that failed the PT are marked in bold.

Summary of qualitative results:

Total number of PT panels	17
Number of participant laboratories	17
Number of participants that passed the PT	15
Number of participants that failed the PT	2

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Overtime comparison of results:

Laboratory code	PT 2011	PT 2012	PT 2013	PT 2014	PT 2015
NRL1	positive	positive	positive	positive	positive
NRL2	-	-	-	negative	-
NRL3	negative	-	positive	positive	positive
NRL4	positive	positive	positive	positive	-
NRL6	positive	positive	negative	positive	negative
NRL7	-	negative	negative	positive	positive
NRL8	positive	positive	positive	positive	positive
NRL9	negative	-	negative	-	-
NRL10	negative	positive	-	positive	positive
NRL11	positive	negative	positive	positive	-
NRL12	-	-	positive	-	positive
NRL16	positive	positive	positive	positive	positive
NRL17	-	-	-	positive	positive
NRL21	positive	negative	positive	positive	positive
NRL22	-	positive	negative	negative	positive
NRL23	-	positive	positive	positive	positive
NRL24	negative	-	positive	positive	positive
NRL25	-	-	positive	positive	positive
NRL34	negative	negative	positive	positive	positive
NRL35	negative	negative	-	negative	positive
NRL38	positive	-	-	-	-
NRL40	-	positive	-	-	-
NRL42		-	-	negative	-
NRL44	-	-	-	negative	-
NRL45	-	-	-	-	negative

Comments:

The two laboratories that failed the PT reported problems during the DNA purification step. During the workshop the laboratories received suggestion to improve their system.

The Director Dr. E. Pozio

Date 18/05/2015

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Notes:

- 1. To guarantee confidentiality, participant laboratories are identified by alphanumeric codes. PT participant identity is kept confidential and bound by professional secrecy. If PT results have to be provided directly to a competent authority, the organizer shall send a written notice to inform the involved participants.
- 2. The organizer subcontracts PT item transport and delivery to a qualified transportation company.
- 3. Each participating laboratory receives a PT panel according to the PT scheme. Each PT item consists of 4 or 12 1.5 ml vials containing four different *Trichinella spp*. The homogeneity of PT items is ensured by an accurate control of the number of larvae spiked into each vial (item), made by two operators using a stereo microscope. PT items are stable for 5 years from the date of preparation (corresponding to the shipping date), provided that they are maintained in suitable conditions.
- 4. At the beginning of each year, the organizer draws up a PT program and makes it known by sending an email to the NRLs
- 5. The final report issued for each PT round shows the PT program implementation.

End of the report

PT Coordinator