Final report PT-An 1/2016

PT report on "Detection of Anisakidae L3 larvae in fish fillets"

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	
PT items	Matrix	fresh water farmed fish fillet
	Item	Anisakidae live larvae
	N. of samples	3 for each participant
	Distribution	Immediate shipment after preparation
Subcontracted activities	NOT APPLICABLE	
Results evaluation	Qualitative	

Implementation

N. of participants	30	PT items	fish fillet sandwiches	90
Public laboratories	2			
Private laboratories	0		PT panel composition	3 fish fillet sandwiches with 2 larvae each
NRL	28		Shipping	TNT Express
Shipping dates	14/03/2016			

PT Provider
Unit of Gastro-enteric and Tissue Parasitic Diseases
Istituto Superiore di Sanità

Viale Regina Elena, 299 – 00161 Rome, Italy

PT Person in charge: Dr. Marco Lalle
e-mail: marco.lalle@iss.it; tel: +39 0649902670

Results

The PT final evaluation was qualitative only. The PT was considered passed if all positive and all negative samples were correctly identified by the participant.

Laboratory code	N° of samples correctly identified	N° of samples NOT correctly identified	Final evaluation
A1	3	0	Positive
A2	3	0	Positive
A3	3	0	Positive
A4	**2**	**1**	**Negative**
A5	3	0	Positive
A6	3	0	Positive
A7	3	0	Positive
A8	3	0	Positive
A9	3	0	Positive
A10	**2**	**1**	**Negative**
A11	3	0	Positive
A12	3	0	Positive
A13	3	0	Positive
A14	3	0	Positive
A15	3	0	Positive
A16	3	0	Positive
A17	3	0	Positive
A18	3	0	Positive
A19	3	0	Positive
A20	3	0	Positive
A21	3	0	Positive
A22	3	0	Positive
A23	3	0	Positive
A25	3	0	Positive
A26	3	0	Positive

PT Provider
Unit of Gastro-enteric and Tissue Parasitic Diseases
Istituto Superiore di Sanità

Viale Regina Elena, 299 – 00161 Rome, Italy

PT Person in charge: Dr. Marco Lalle
e-mail: marco.lalle@iss.it; tel: +39 0649902670

A28	3	0	Positive
A29	3	0	Positive
A30	3	0	Positive
A31	3	0	Positive
A34	3	0	Positive

Legend: Laboratories that failed the PT are marked in bold.

Summary of results:

Total number of PT panels	**90**
Number of participant laboratories	**30**
Number of participants that passed the PT	**28**
Number of participants that failed the PT	**2**

Overtime comparison of results

Laboratory code	2014	2015	2016
A1	P	P	P
A2	P	P	P
A3	**N**	P	P
A4	P	P	**N**
A5	P	P	P
A6	P	P	P
A7	P	P	P
A8	P	P	P
A9	P	-	P
A10	P	P	**N**
A11	P	**N**	P
A12	P	**N**	P
A13	P	P	P
A14	**N**	P	P
A15	P	P	P
A16	**N**	P	P
A17	*NR*	-	P

Laboratory code	2014	2015	2016
A18	P	P	P
A19	P	P	P
A20	P	P	P
A21	P	P	P
A22	P	P	P
A23/A33	**N**	P	P
A24	**N**	-	-
A25	P	P	P
A26	P	P	P
A27	P	-	-
A28	P	-	P
A29	-	-	P
A30	-	P	P
A31	-	P	P
A32	-	P	-
A34	-	-	P

Legend: P, positive; N, negative; NR, no result received.

PT Provider
Unit of Gastro-enteric and Tissue Parasitic Diseases
Istituto Superiore di Sanità

Viale Regina Elena, 299 – 00161 Rome, Italy

PT Person in charge: Dr. Marco Lalle
e-mail: marco.lalle@iss.it; tel: +39 0649902670

Comments:

In agreement with previous PTs, the results indicate that most of participating laboratories are highly competent in the identification of Anisakidae larvae, irrespective of the detection method used. Moreover, the possibility to routinely examine fish samples parasitized by Anisakidae can positively impact on the laboratory performance. Compared to previous years, low sensitive methods, compressorium and candling (only one lab used candling due to technical problems with UV apparatus), are now used only in combination with artificial digestion or UV method. Although artificial digestion is still the most used method (by 23 laboratories), the UV examination after freezing (UV-press method) is increasing its popularity since this year 6 labs used it. Noteworthy, the number of larvae was underestimated exclusively by those laboratories that used the digestion method (eight out 23 laboratories). The causes of laboratory failure were investigated by directly contacting the laboratories. One laboratory identified the cause in the poor performance of the analyst combined with a malfunctioning of the UV light apparatus used for the UV-press method. The other lab correlated PT failure to the inexperience of the analyst. As corrective action, both labs asked to analyse a new set of samples, since they don't perform routine analysis on samples infected with Anisakidae.

The Director
Dr. E. Pozio

Date 19/05/2016

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 designates a qualified company for the transport and delivery of PT items.
3. Each participating laboratory receives a PT panel according to the PT scheme. Each PT item consists of a fish fillet sandwich spiked or not with live Anisakidae larvae. The homogeneity of PT items is ensured by an accurate control of the number of larvae spiked into each sample (item) made by two operators. PT items are stable for 7 days 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 issue of each PT round shows the PT program implementation.

End of the report

PT Provider
Unit of Gastro-enteric and Tissue Parasitic Diseases
Istituto Superiore di Sanità

Viale Regina Elena, 299 – 00161 Rome, Italy

PT Person in charge: Dr. Marco Lalle
e-mail: marco.lalle@iss.it; tel: +39 0649902670