



Animal &
Plant Health
Agency

PrP Immunohistochemistry Technical EQA 2018

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(slides prepared by Peter Bellerby)

**Pathology Department
APHA Weybridge**



PrP IHC EQA 2018

Participation

- 23 laboratories took part including:
 - 1 UK lab
 - 1 non-EU

Samples

- BSE – medulla
 - Classical scrapie – medulla, lymph node
 -
-

PrP IHC EQA 2018

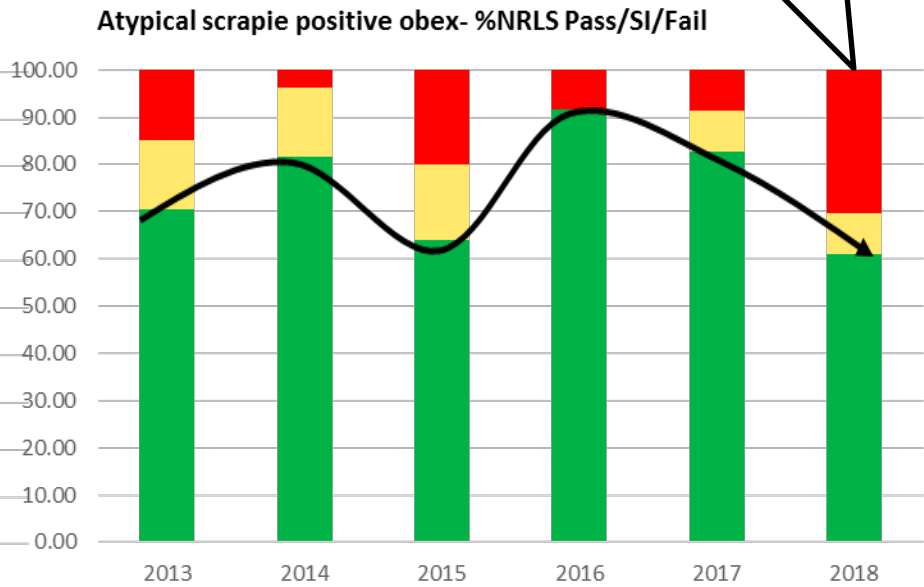
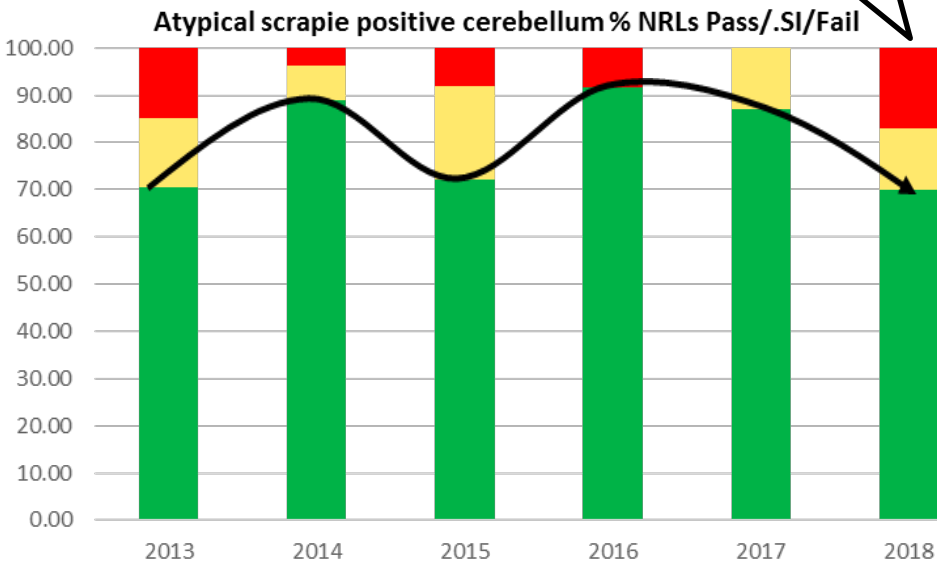
Results

- Member states passing all categories = 14
 - MS requiring technical follow up = 1
 - MS with scope for improvement = 6 (to follow up themselves)
-

Atypical scrapie

Pass = 16 (70%)
SI = 3 (13%)
Fail = 4 (17%)

Pass = 14 (61%)
SI = 2 (9%)
Fail = 7 (30%)



Key

- = Fail
- = Scope for Improvement
- = Pass

→ = Trend

Atypical scrapie

- The obex and cerebellum were *selected to test the limits of sensitivity and levels of background*.
- The case section was difficult to stain, with many labs finding a *higher than normal level of non specific labelling* in the cerebellum.
- A fail for the obex but not for the cerebellum shows a minor lack of sensitivity.
-



PrP IHC result – Detection systems

Detection system	Number of labs	Result
VECTASTAIN ABC Staining kit	12	9x Pass 3x SI most sections
DAKO REAL EnVision (5007)	4	3x Pass 1x Pass all except Atypical scrapie obex
DAKO REAL (5003)	2	1x Pass 1x Pass all except Atypical scrapie obex
Vector ImmPRESS	1	Pass
Pullman Kit Streptavidin	1	SI/fail all except LN
Marque Hi Def Polymer,	1	Pass all except Atypical scrapie obex
Ventana Ultraview	1	Pass all except Atypical scrapie obex
DAKO PX streptavidin	1	Pass all except Atypical scrapie obex

PrP IHC result – Detection systems

Best overall
sensitivity
and pass rate



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Discussion

- Despite the challenges most labs get good results
- The Atypical scrapie case was meant to be particularly challenging
- Our technical advice is not always implemented so the same performance issues recur: *counterstaining, background, over digestion, out of date reagents, variable chromogen time...*
- Best wishes for future EQA

GOOD LUCK!



ACKNOWLEDGEMENTS!

Efharisto
multumesc
Thank
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Nirringrazzjakom
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grazie
tack
Hvala Thank you
danke
aitäh
kiitos
Tak
Grazzi
merci
ačiū
gracias

- All our MS TSE PT round participants
- Staff at the APHA QA Unit
Sutton Bonington
- The APHA teams for preparation, labelling and dispatch of samples, confirmatory testing
- The NRLs undertaking batch testing for the EURL
- The European Commission for supporting our work

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