

Wrap up and take home
messages

Surveillance and Monitoring: Molecular typing

- Human side: Molecular typing of STEC needs to be improved in terms of data contributed (3MS) IN 2016.
- Serogroup analysis of human cases might be biased
- Non human side: Harmonization in the analytical method achieved. data still biased by lack of harmonization of the sampling strategies. Legal framework might help in this.

Network activities

- PT-PFGE: very good performance of the participating labs in producing profiles. Similar to human side
- Need to improve the use of BioNumerics
- Continue to deliver EQA and training. More joint PTs?
- PT18/PT19. very good preparedness for the detection and characterisation of STEC and other pathogenic *E. coli*

Move the typing strategy to NGS

- Participation in the international initiatives
- Inter EURL WG on WGS
- Improvement of the resources through new hardware acquisition and collaborations
- First inter laboratory exercise on WGS next November (23 laboratories accepted to participate)

Isolation of STEC from complex matrices

- Incubation at 41.5°C seems to be as good as 37°C
- Dilution/re-incubation strategy
- Serial subcultures from direct plating STEC agar > mRBA > TBX
- Incubation at 41.5°C . Inoculation of five solid media TBX CT-SMAC MAC RMAC SMAC. Positive from TBX. Pooling strategy. No IMS!!

**These issues will be discussed at the next TAG 18 meeting
(December 2017)**

DATA

- Diversity of STEC O26
- Complexity of STEC in general and other pathogenic *E. coli*
- The emerging problem of raw drinking milk in UK
- STEC can get heat resistance genes through conjugative plasmids
- Virulence genes present in different combinations in STEC from pigs (NL) (Which however are mostly stx2e)
- High prevalence of STEC in small ruminants (mainly *eae* negative). Important serotypes (e.g. O146:H21; O128:H2)
- Confirmation that *E. coli* are not a good indicator for the presence of STEC in a given food matrix
- STEC strains present in shellfish. Hybrid EYEC/STEC strains present in raw cheese (Norway)
- More and more hybrid STEC strains continue to pop up
- STEC and food safety????? A global Epidemiology!!!!

Risk assessment/management

- Guideline stuck after two years of discussion with MS
- Request for a food safety criterion for STEC in beef meat

- WHO/FAO meeting recommendation to get a rid of serogroups
- ISO TS 13136 revision. Serogroups no more involved in the main scheme
- It's necessary to take actions to improve isolation
- Harmonizing the monitoring of STEC would greatly increase the value of the data collection