Analysis for Food Pathogens using Precis™ Rapid Method

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OBJECTIVES

- What are Precis™ Rapid Methods?
- Why did we consider using them?
- Validation & accreditation.
- Potential benefits over other methodologies.
- Introduction into routine use.
- Limitations or problems encountered.
- Summary.
What are Precis™ Rapid Methods?

- Rapid Culture Methods for *Salmonella* and *Listeria* in food and environmental samples.
- Thermo Fisher Scientific product marketed under the Oxoid brand name.
- Use a selective enrichment broth – ONE Broth and chromogenic agar - *Brilliance™*
Why did we consider using them?

- Need for a rapid method to meet customer demands.
- Cost effective solution – no special equipment required.
- Simple and easy procedure.
- Produced by industry leading supplier with strong technical support and advice available.
Validation and Accreditation

- Validated by AFNOR to ISO 16140 standard.

- Full in house validation performed at Sittingbourne against the reference ISO methods.

- Worked closely with Thermo Fisher Scientific team at Basingstoke and our account manager, Carolyn Pritchard.

- UKAS accreditation and Tesco approval granted.

- M&S approval for Salmonella with Listeria approval pending
Potential benefits over other methodologies (1)

- Single 24 hour enrichment stage in ONE-Broth.
- Single sample transfer – no multiple pipetting stages so reduced risk of cross contamination.
- Single 24 hour plate incubation on Brilliance™.
- Laboratory time savings – process more samples.
- Reduced time to result reporting.
- Cost savings.
Potential benefits over other methodologies (2)

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- Brilliance™ Agar very selective for target organisms – plates easy to read.

- Brilliance™ Listeria Agar differentiates species and can give early indication of *Listeria monocytogenes*.

- Presumptive positive colonies on Day 2 for confirmation – advantage over other non-culture rapid methods with confirmed results available at least 24 hours earlier.
Introduction into routine use.

- Communication to clients – benefits explained.
- Staff training and competency.
- Inclusion on standard Internal Quality Control (IQC) and External Proficiency Testing (PT) schedules.
- Updates to existing analysis suites.
- Now primary method of choice for *Salmonella* and *Listeria* testing at Sittingbourne.
Limitations or problems encountered.

- Initial higher proportion of presumptive positive samples – training and experience / over cautious.
- Reluctance to change – certain clients.
- Occasional issues with Brilliance™ Salmonella and certain sample matrices – high percentage of presumptive positives not confirming. Under investigation with Basingstoke technical team.
- Overall – very few issues.
Summary.

- Oxoid Precis™ methods are a cost effective alternative to non-culture based rapid methods.

- Performance equivalence to reference ISO methods has been demonstrated.

- UKAS accredited with major retailer approval granted or pending.

- Reduced time to confirmed result – significant benefit to food manufacturers on positive release.

- Analysis cost and time savings.
ANY QUESTIONS