Microbiology Division Scientific Meeting

General Bacteriology distribution report update

Shila Seaton

27th November 2013

Why the change?

- With the advent of new technology being implemented in clinical laboratories for the identification of micro organisms

- Collate data on the common methods being used for identifying the various genera

New format web reply form

- Modify the web reply form to capture the method(s) used to identify the potential pathogen distributed in the simulated EQA specimen
- Opportunity to enter results if more than one method used
- Scored on an overall reported result

Results Entry

Laboratory:

Scheme: **UK NEQAS for General bacteriology**
Distribution: **3332 (CLOSED)**
Dispatch date:: **25-11-2013**
Return results: **16-12-2013**

**** RESULTS WERE NOT SUBMITTED ****

Results shown are your last ONLINE submission and may not reflect subsequent amendments.
If error(s) are shown then NONE of your results were accepted for this distribution.

Status: NOT submitted

Page: Info | Spec:1749 | Spec:1750 | Spec:1751 | Final Page | Blank form

Sputum: Cystic fibrosis patient with chest infection. Query significant pathogens.

	Specimen : 1749
Method A (Pathogen 1)	
Result A (Pathogen 1)	
Method A comment (Pathogen 1)	
Method B (Pathogen 1)	
Result B (Pathogen 1)	
Method B comment (Pathogen 1)	
Overall result Pathogen 1	
Pathogen 1 comment	
.	
Method A (Pathogen 2)	
Result A (Pathogen 2)	
Method A comment (Pathogen 2)	
Method B (Pathogen 2)	
Result B (Pathogen 2)	
Method B comment (Pathogen 2)	
Overall result Pathogen 2	
Pathogen 2 comment	
.	
Referral	◉ Not Examined ○ Not referred ○ Refer

Reset Specimen 1749 | Save Specimen 1749

Operated by Public Health England
HS Specialist Microbiology Services
133-155 Waterloo Road
Wellington House
London SE1 8UG

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Method B (Pathogen 1)	
Result B (Pathogen 1)	
Method B comment (Pathogen 1)	
Overall result Pathogen 1	
Pathogen 1 comment	
.	
Method A (Pathogen 2)	
Result A (Pathogen 2)	
Method A comment (Pathogen 2)	
Method B (Pathogen 2)	
Result B (Pathogen 2)	
Method B comment (Pathogen 2)	
Overall result Pathogen 2	
Pathogen 2 comment	
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Web entry reporting

- Request for method used from June 2013
- Do not report commensal(s) present
- If you wish enter comments relating to commensals add to the appropriate comments box
- Data collated has shown up to 206 laboratories used the MALDI-ToF and 248 VITEK® instrument

S. aureus : Distn October 2013
99% correct result

Method	Total no. participants 636
Conventional Testing	324
Vitek 2 (all models)	187
MALDI-ToF	142
Phoenix 100	33
Microscan	14

S. epidermidis: Distn October 2013
97% correct

Method	No of participants 632
Conventional Testing	181
Vitek 2 (all models)	248
MALDI-ToF	206
Phoenix 100	35
Microscan	13

Anaerobes

- Increase in reporting anaerobes correctly to genus and species level

- Highest accuracy for reporting to species level with a single method was using a MALDI-Tof instrument

Anaerobes

- *Peptostreptococcus anaerobius*
- Distn 3302 October 2013
- 87% correct to genus level with 8% to species level

Peptostreptococcus anaerobius

- Conventional testing reported the most common method (245/539)
- 94% accuracy (126/134) Bruker Biotyper
- 98% accuracy (63/64) bioMerieux VITEK® MS.
- 78% (158/202) bioMerieux VITEK®

Anaerobes

- *Proprionibacterium acnes*
- Distn 3273 August 2013
- 81% correct to genus level with 79% to species level

Proprionibacterium acnes

- Most common method reported was conventional, of which 63% (165/261)
- 92% accuracy (119/129) Bruker biotyper
- 93% accuracy (50/54) bioMerieux VITEK® MS.
- 87% (168/191) bioMerieux VITEK®

Leuconostoc mesenteroides

- Educational specimen
- Distn 2385 Sept 2013
- Some 48% achieved the correct result to identifying to species level

Leuconostoc mesenteroides

- Most common method used was Vitek (259)
- Vitek also determined the highest accuracy to species- 19% (50/259)
- Conventional testing did not speciate the organism (189)
- MALDI-ToF users either reported correctly to genus level or mis speciated as *L. citreum* (189)

Summary 1

- Presentation of results by method is more informative
- Participants can compare results between methods
- Opportunity to highlight common issues with methods/instruments
- Potential for improved identification
- Revival of anaerobe identification

Summary *2*

- To date conventional testing is still the predominant method for identification of most organisms
- Vitek is presently the most common automated system used for identification
- MALDI-ToF has given the opportunity to identify anaerobes to species level
- Molecular testing is rarely reported but with the roll out of WGS – watch this space