


|                                     |   |                        |   |                           |  |                            |  |
|-------------------------------------|---|------------------------|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |                        |   |                           | <br><small>Quality Control for Molecular Diagnostics</small> |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

### Intended Results / Panel Composition

| Sample Code | Sample Content                          | Resistance Gene <sup>[1]</sup> | Sample Relationships <sup>[2]</sup> | Resistance Detected <sup>[3]</sup> |      |                         |      |                               |      |
|-------------|---|--------------------------------|-------------------------------------|------------------------------------|------|-------------------------|------|-------------------------------|------|
|             |   |                                |                                     | Positive <sup>[3]</sup>            |      | Negative <sup>[3]</sup> |      | Not Determined <sup>[3]</sup> |      |
|             |   |                                |                                     | (n)                                | (%)  | (n)                     | (%)  | (n)                           | (%)  |
| VRE101S-01  | E. faecalis (equivalent to ATCC51299)   | VanB                           | DS2_1                               | 64                                 | 90.1 | 5                       | 7.0  | 2                             | 2.8  |
| VRE101S-02  | E. faecalis (equivalent to ATCC51299)   | VanB                           | DS2_3                               | 60                                 | 84.5 | 8                       | 11.3 | 3                             | 4.2  |
| VRE101S-03  | E. faecium S + E. gallinarum (LMG16289) | VanC (C1/C2)                   |                                     | 11                                 | 15.5 | 56                      | 78.9 | 4                             | 5.6  |
| VRE101S-04  | E. gallinarum (ENT20120142)             | VanB, VanC (C1/C2)             |                                     | 61                                 | 85.9 | 5                       | 7.0  | 5                             | 7.0  |
| VRE101S-05  | E. faecalis S (ENT20130032)             |                                |                                     | 0                                  | 0.0  | 67                      | 94.4 | 4                             | 5.6  |
| VRE101S-06  | E. faecium (IOWA1)                      | VanA                           |                                     | 68                                 | 95.8 | 1                       | 1.4  | 2                             | 2.8  |
| VRE101S-07  | E. faecium (LMG16165)                   | VanA                           | DS1_1                               | 66                                 | 93.0 | 3                       | 4.2  | 2                             | 2.8  |
| VRE101S-08  | Negative                                |                                |                                     | 1                                  | 1.4  | 61                      | 85.9 | 9                             | 12.7 |
| VRE101S-09  | E. faecalis (equivalent to ATCC51299)   | VanB                           | DS2_2                               | 60                                 | 84.5 | 9                       | 12.7 | 2                             | 2.8  |
| VRE101S-10  | S. aureus (equivalent to ATCC25923)     |                                |                                     | 1                                  | 1.4  | 60                      | 84.5 | 10                            | 14.1 |
| VRE101S-11  | E. faecium (LMG16165)                   | VanA                           | DS1_2                               | 62                                 | 87.3 | 5                       | 7.0  | 4                             | 5.6  |
| VRE101S-12  | E. faecium (IOWA2)                      | VanB                           |                                     | 62                                 | 87.3 | 6                       | 8.5  | 3                             | 4.2  |

[1] **Resistance gene:** the specific resistance genes present within each sample.

[2] **Sample Relationships:** Indicates the relationships of the samples within this challenge. If one duplicate pair is present this is indicated by 'D1'. Further duplicate pairs are indicated by 'D2', 'D3' etc. Dilution series are indicated by 'DS1' with each panel member in the dilution series represented by a number in order of titre, where DS1\_1 represents the highest titre within that dilution series. Further dilution series are indicated by 'DS2' 'DS3' etc.

[3] **Resistance Detected:** The number (n) and percentage (%) of datasets reported by all participants for the resistance status of each sample by indicating whether it was positive or negative for antibiotic resistance. If resistance was detected, laboratories were then asked to specify the resistance gene(s) identified

|                                     |   |                        |   |                           |  |                            |
|-------------------------------------|---|------------------------|---|---------------------------|--|----------------------------|
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| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |

## Your Summary Results

| Sample Code | Expected Result <sup>[1]</sup> |                 | Your Laboratory reported Result <sup>[2]</sup> |                     |                 |
|-------------|--------------------------------|-----------------|--|---------------------|-----------------|
|             | Resistance Detected            | Resistance Gene | Resistance Gene Tested                         | Resistance Detected | Resistance Gene |
| VRE101S-01  | Positive                       | VanB            | Yes  | Positive            | VanB            |
| VRE101S-02  | Positive                       | VanB            | Yes  | Positive            | VanB            |
| VRE101S-03  | Positive                       | VanC (C1/C2)    | No   | Negative            |                 |
| VRE101S-04  | Positive                       | VanB            | Yes  | Positive            | VanB            |
|             |                                | VanC (C1/C2)    | No   |                     |                 |
| VRE101S-05  | Negative                       | -               | N/A  | Negative            |                 |
| VRE101S-06  | Positive                       | VanA            | Yes  | Positive            | VanA            |
| VRE101S-07  | Positive                       | VanA            | Yes  | Positive            | VanA            |
| VRE101S-08  | Negative                       | -               | N/A  | Negative            |                 |
| VRE101S-09  | Positive                       | VanB            | Yes  | Positive            | VanB            |
| VRE101S-10  | Negative                       | -               | N/A  | Negative            |                 |
| VRE101S-11  | Positive                       | VanA            | Yes  | Positive            | VanA            |
| VRE101S-12  | Positive                       | VanB            | Yes  | Positive            | VanB            |

[1] **Expected Result:** The expected results for each sample


Resistance Detected: The expected resistance status for each sample.

Resistance Gene: The specific resistance genes present within each sample.

[2] **Your Laboratory Reported Result:** Resistance Gene Tested: The specific resistance gene(s) tested by your laboratory within each sample.

Resistance Detected: The resistance status reported by you for each sample.

Resistance Gene: The specific resistance gene(s) reported by your laboratory for each resistance gene tested.

|                                     |   |                        |   |                           |  |                            |
|-------------------------------------|---|------------------------|---|---------------------------|--|----------------------------|
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| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |

### Pathogen Resistance Programme – Qualitative Assessment of Results



Results are categorised based on the workflow used and the resistance gene(s) targeted as shown in the table below.

| Expected Result - Resistance Detected | Your Laboratory Reported Result    |                     |   | Result Category  |   |
|---------------------------------------|------------------------------------|---------------------|---|--|---|
|                                       | Expected Resistance Gene(s) Tested | Resistance Detected | Reported Resistance Gene(s)               |  |   |
| Positive                              | Yes                                | Positive            | All expected genes reported               | Correctly reported result                                    |   |
|                                       |                                    |                     | Some expected genes reported              | Resistance detected but all resistance genes not identified. |   |
|                                       |                                    |                     | No expected genes reported                |  |   |
|                                       | No                                 | No                  | Negative                                  | -  | Resistance incorrectly reported as negative |
|                                       |                                    |                     | Not Determined                            | Resistance genes reported or not reported                    | Result not determined                       |
|                                       |                                    |                     | Positive                                  | Other resistance genes reported                              | False positive result                       |
|                                       |                                    |                     | Negative                                  | -  | Correctly reported result                   |
|                                       |                                    |                     | Not determined                            | Resistance genes reported or not reported                    | Result not determined                       |
|                                       |                                    |                     | Positive                                  | Resistance genes reported or not reported                    | False positive result                       |
| Negative                              | -                                  | Positive            | Resistance genes reported or not reported | False positive result  |   |
|                                       |                                    | Negative            | -   | Correctly reported result                                    |   |
|                                       |                                    | Not Determined      | Resistance genes reported or not reported | Result not determined  |   |

### My Workflow Details

Below you will find all workflows used to obtain your results within this EQA challenge / distribution.

|                                     |   |                        |   |                           |  |                            |
|-------------------------------------|---|------------------------|---|---------------------------|--|----------------------------|
| <b>Individual Report</b>            | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |                        |   |                           | <br><small>Quality Control for Molecular Diagnostics</small> |                            |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |

|                    |  |
|--------------------|--|
| <b>Name</b>        | VRE PCR Kit (v3)   |
| <b>Description</b> |  |
| <b>Targets</b>     | <b>C</b> VRE   |
| <b>Assays</b>      | <ul style="list-style-type: none"> <li> <b>Extraction - Manual Extraction Process</b> <ul style="list-style-type: none"> <li>• Commercial <ul style="list-style-type: none"> <li>◦ Kit Manufacturer: <i>GeneProof</i></li> <li>◦ Kit Type: <i>PathogenFree DNA Isolation Kit</i></li> </ul> </li> </ul> </li> <li> <b>Amplification - GeneProof - croBEE Real-Time PCR System</b> <ul style="list-style-type: none"> <li>• Commercial <ul style="list-style-type: none"> <li>◦ Kit Manufacturer: <i>GeneProof</i></li> <li>◦ Kit Type: <i>GeneProof VRE PCR Kit</i></li> <li>◦ Kit Version: <i>ISEX</i></li> </ul> </li> </ul> </li> </ul> |

|                                   |  |
|-----------------------------------|--|
| <b>Used to test sample (gene)</b> | VRE101S-01 (VanB), VRE101S-02 (VanB), VRE101S-04 (VanB), VRE101S-06 (VanA), VRE101S-07 (VanA), VRE101S-09 (VanB), VRE101S-11 (VanA), VRE101S-12 (VanB) |
|-----------------------------------|--|

## Further Programme Details

|                                     |    |
|-------------------------------------|----|
| <b>Number of Laboratories</b>       | 75 |
| <b>Number of Countries</b>          | 23 |
| <b>Number of Respondents</b>        | 64 |
| <b>Number of Datasets Submitted</b> | 71 |

## EQA Programme Aims

This EQA will focus on the laboratories ability to detect and determine different VRE in clinically relevant sample types using molecular techniques.

## Feedback and Enquiries

Participants are encouraged to read the Participants' Manual, which can be downloaded from the QCMD website. Any enquiries should be submitted through the 'Contact Us' form that you can find in the 'Help' section of your QCMD (ITEMS) Participant Profile Area.

|                                     |   |                        |   |                           |  |                            |
|-------------------------------------|---|------------------------|---|---------------------------|--|----------------------------|
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| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |

### Additional Information: Individual Panel Member Analysis

Qualitative analysis for each panel member is provided in relation to your EQA assessment group. EQA assessment groups are established using the molecular workflow information reported by all participants within this EQA challenge / distribution. To allow meaningful assessment at the individual method level the EQA assessment group must consist of 5 or more datasets. If there are not sufficient datasets at the individual method level then your results will be included within a higher EQA assessment group based on whether it is a commercial or in house technology/method. The highest level assessment grouping is "All" participant reported qualitative results.

A breakdown of qualitative results reported for all workflows used by participants on each of the panel members within this EQA challenge / distribution is provided below. Note: participants may use multiple workflows for each sample.

The final laboratory result indicates the final reported result which may be based on one or more workflows used to test each panel member.

The following figures present a breakdown of results reported for each expected resistance gene within the specified sample.

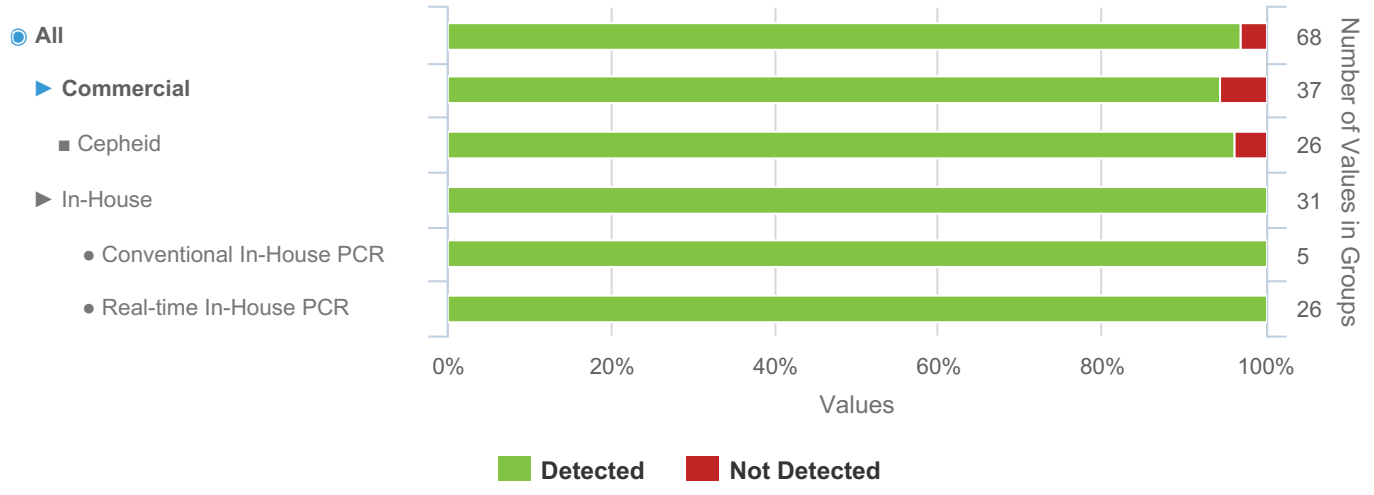
Only results reported as **Detected** or **Not Detected** for the expected resistance gene are presented.

To avoid confusion, results reported as **Not Tested** for the expected resistance gene are not included. As a result, the total number of datasets presented in each figure may vary.

|                              |                    |                 |  |                    |                               |                     |
|------------------------------|--------------------|-----------------|--|--------------------|-------------------------------|---------------------|
| Catalogue Code:<br>QAB134163 | Ref Code:<br>VRE20 | Challenge:<br>S | Analysis Type:<br>Resistance Gene Typing | Dataset:<br>414074 | Report UID:<br>2677/3563/3121 | Laboratory<br>CZ023 |
|------------------------------|--------------------|-----------------|--|--------------------|-------------------------------|---------------------|

| Sample Code | Sample Content                        | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|---------------------------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                                       |                 |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-01  | E. faecalis (equivalent to ATCC51299) | VanB            | DS2_1                               | 64                      | 90.1 | 5                       | 7.0 | 2                             | 2.8 |

**Results reported for sample VRE101S-01 VanB resistance gene**



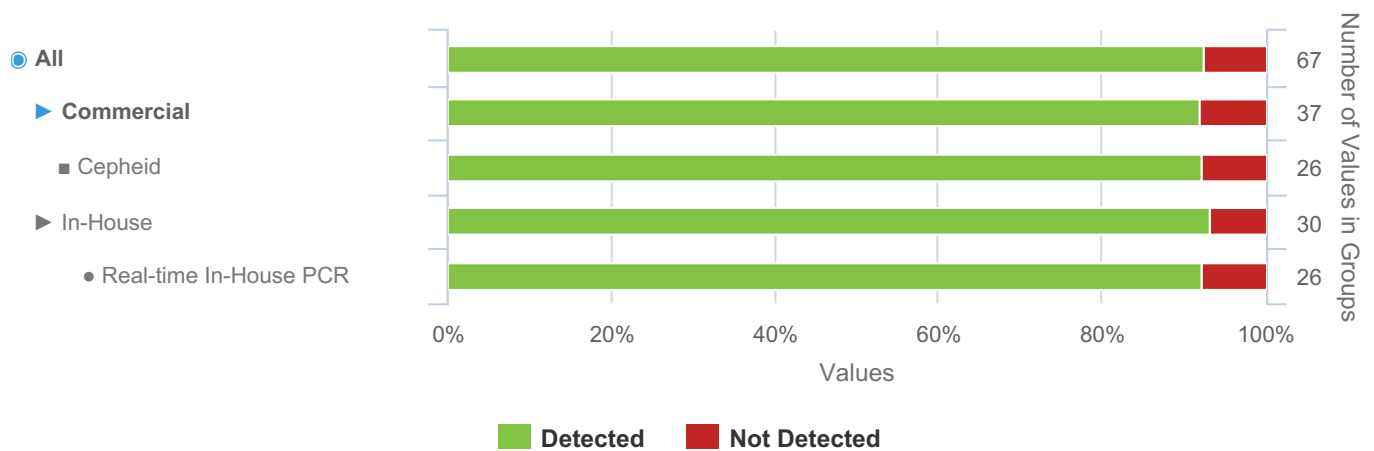
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=26)

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           |  |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content                        | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |      | Not Determined <sup>[2]</sup> |     |
|-------------|---------------------------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|------|-------------------------------|-----|
|             |                                       |                 |                                     | (n)                     | (%)  | (n)                     | (%)  | (n)                           | (%) |
| VRE101S-02  | E. faecalis (equivalent to ATCC51299) | VanB            | DS2_3                               | 60                      | 84.5 | 8                       | 11.3 | 3                             | 4.2 |

**Results reported for sample VRE101S-02 VanB resistance gene**



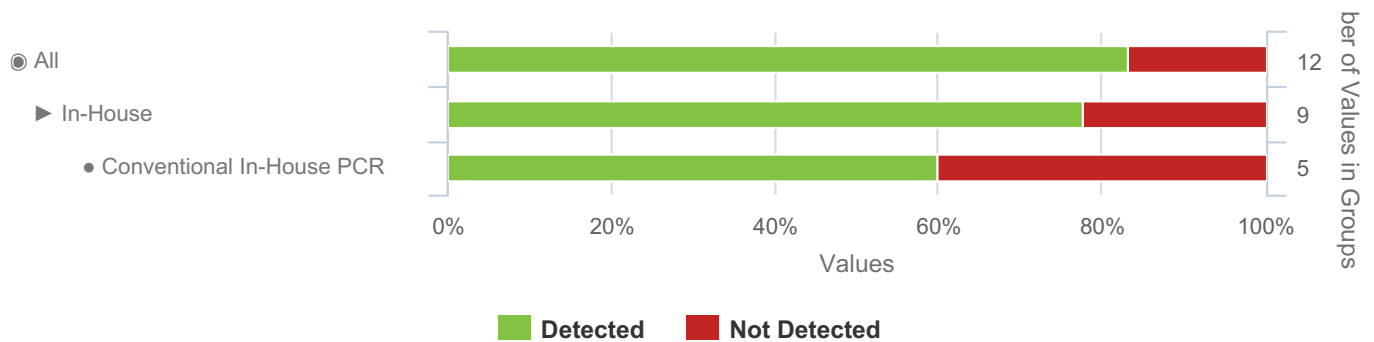
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1), Conventional In-House PCR(n=4)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=26)

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           |  |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content                          | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |      | Not Determined <sup>[2]</sup> |     |
|-------------|---|-----------------|-------------------------------------|-------------------------|------|-------------------------|------|-------------------------------|-----|
|             |   |                 |                                     | (n)                     | (%)  | (n)                     | (%)  | (n)                           | (%) |
| VRE101S-03  | E. faecium S + E. gallinarum (LMG16289) | VanC (C1/C2)    |                                     | 11                      | 15.5 | 56                      | 78.9 | 4                             | 5.6 |

**Results reported for sample VRE101S-03 VanC (C1/C2) resistance gene**



**Groups below n=5:** Commercial(n=3), BD Molecular Diagnostics(n=1), BD MAX(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Real-time In-House PCR(n=4)

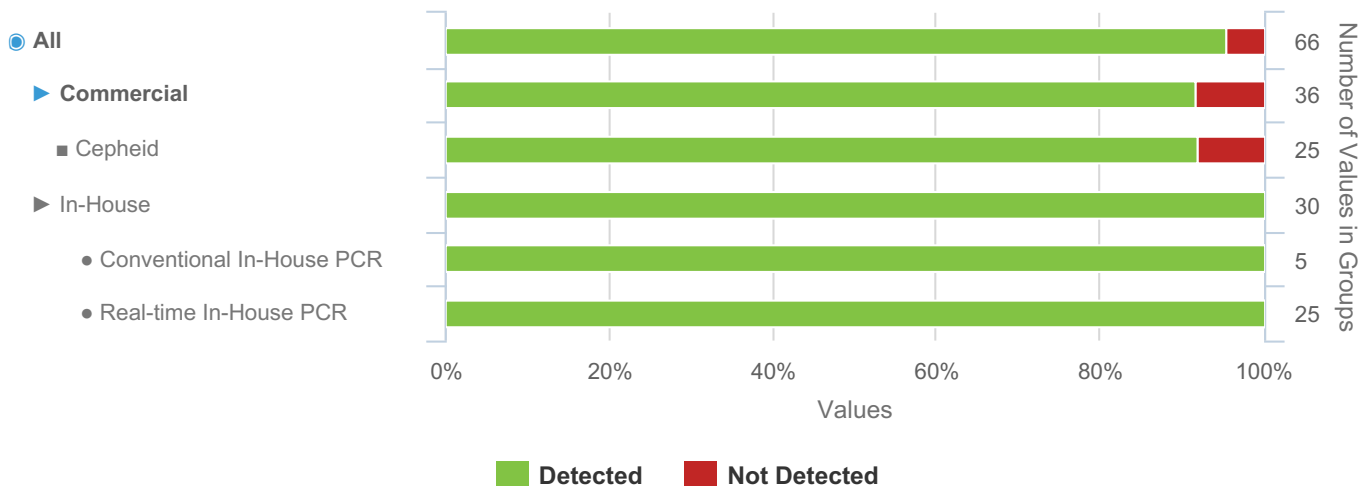
**Groups Rolled Up:**



|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           |  |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content              | Resistance Gene    | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|-----------------------------|--------------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                             |                    |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-04  | E. gallinarum (ENT20120142) | VanB, VanC (C1/C2) |                                     | 61                      | 85.9 | 5                       | 7.0 | 5                             | 7.0 |

**Results reported for sample VRE101S-04 VanB resistance gene**

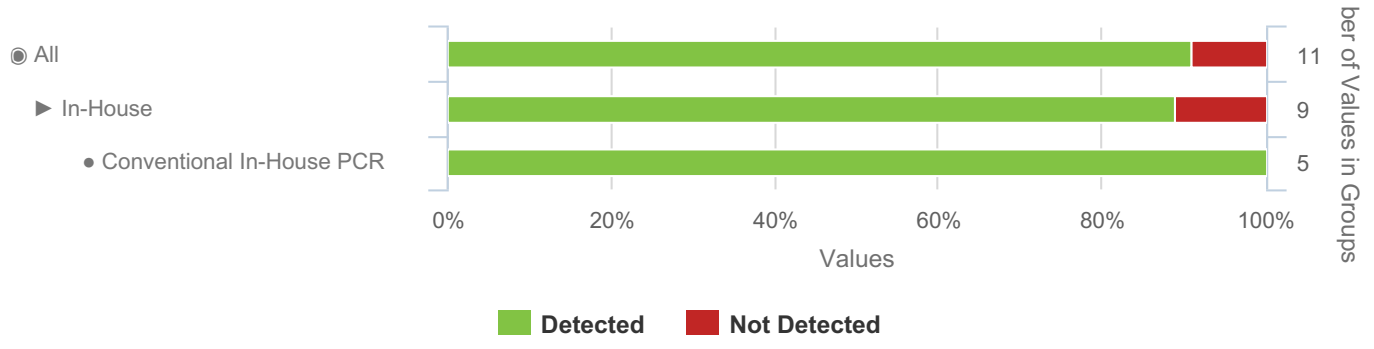


**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=25)

|                                     |   |                        |   |                           |  |                             |
|-------------------------------------|---|------------------------|---|---------------------------|--|-----------------------------|
| <b>Individual Report</b>            | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |                        |   |                           | <br><small>Quality Control for Molecular Diagnostics</small> |                             |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20                                       | <b>Challenge:</b><br>S | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory:</b><br>CZ023 |

**Results reported for sample VRE101S-04 VanC (C1/C2) resistance gene**



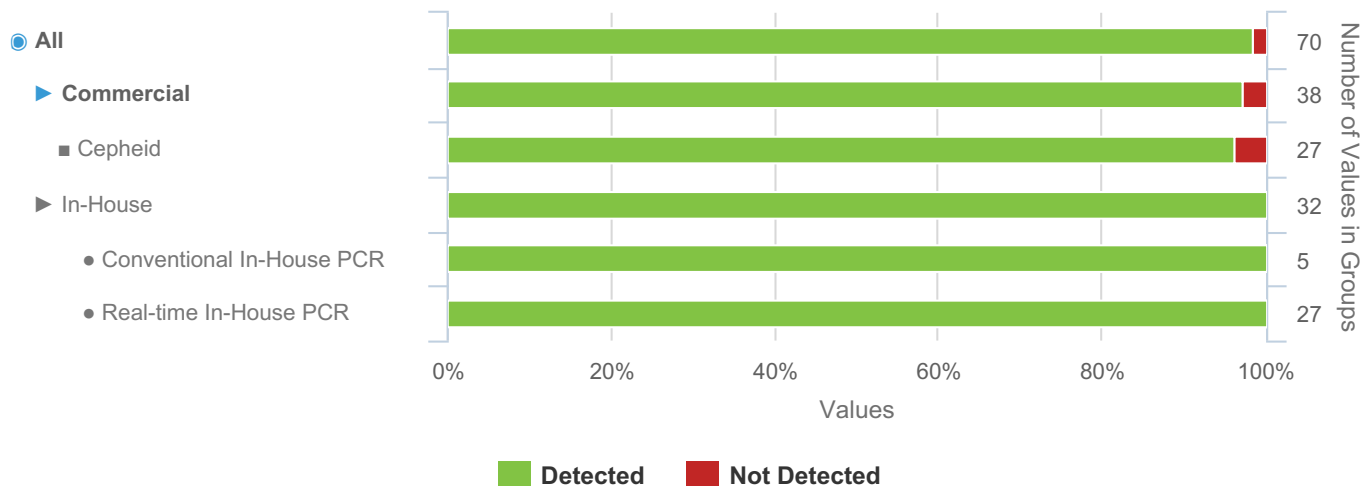
**Groups below n=5:** Commercial(n=2), BD Molecular Diagnostics(n=1), BD MAX(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Real-time In-House PCR(n=4)

**Groups Rolled Up:**

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           | <br><small>Quality Control for Molecular Diagnostics</small> |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content     | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|--------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                    |                 |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-06  | E. faecium (IOWA1) | VanA            |                                     | 68                      | 95.8 | 1                       | 1.4 | 2                             | 2.8 |

**Results reported for sample VRE101S-06 VanA resistance gene**



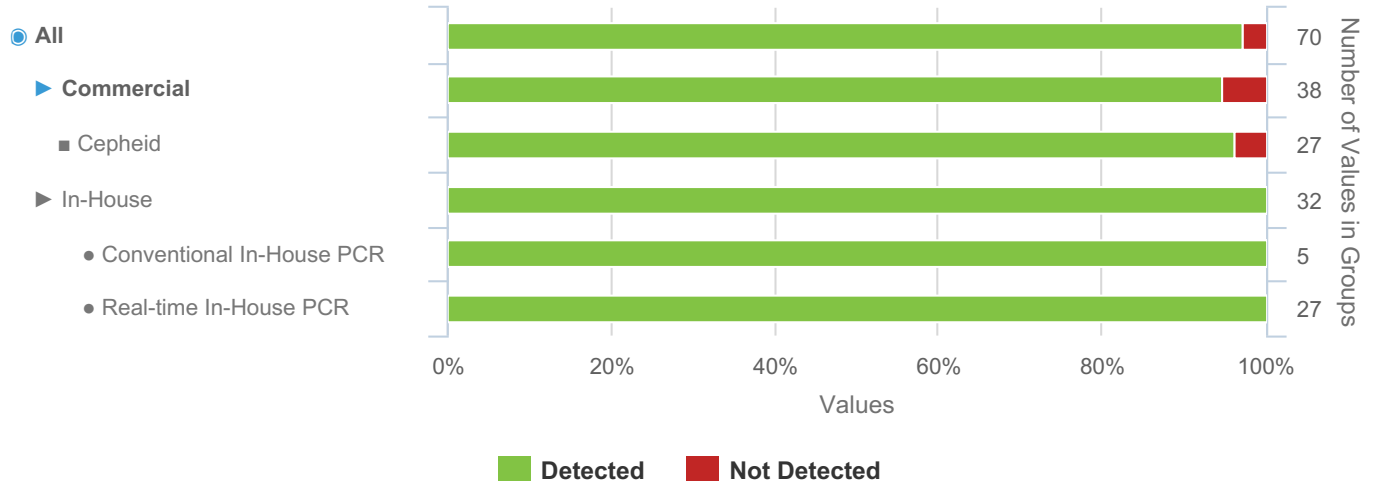
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=27)

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
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| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content        | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|-----------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                       |                 |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-07  | E. faecium (LMG16165) | VanA            | DS1_1                               | 66                      | 93.0 | 3                       | 4.2 | 2                             | 2.8 |

**Results reported for sample VRE101S-07 VanA resistance gene**



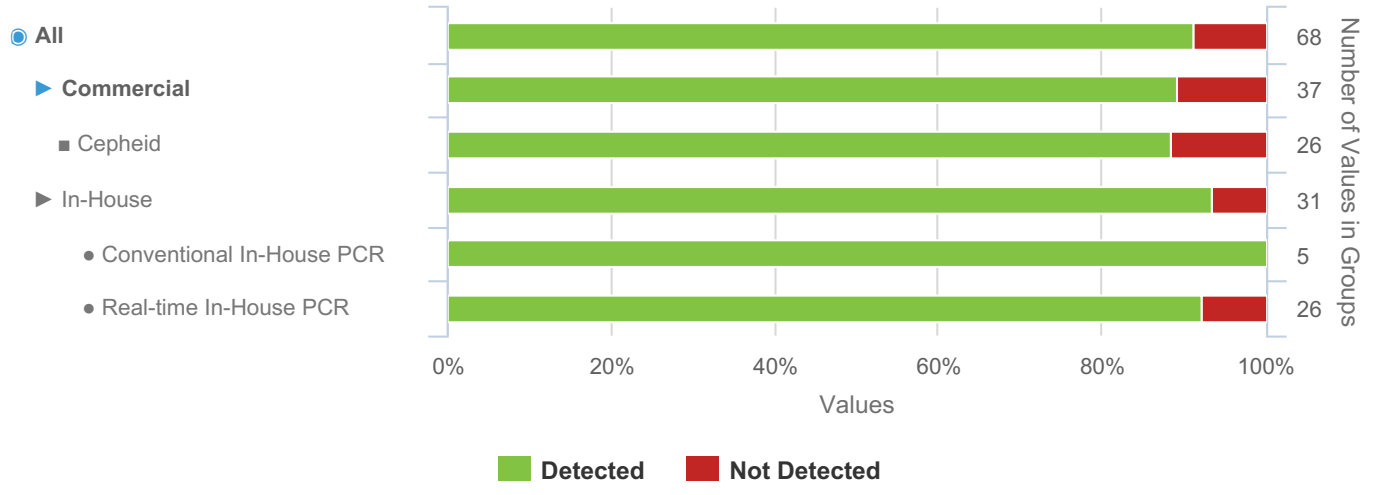
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=27)

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           |  |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content                        | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |      | Not Determined <sup>[2]</sup> |     |
|-------------|---------------------------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|------|-------------------------------|-----|
|             |                                       |                 |                                     | (n)                     | (%)  | (n)                     | (%)  | (n)                           | (%) |
| VRE101S-09  | E. faecalis (equivalent to ATCC51299) | VanB            | DS2_2                               | 60                      | 84.5 | 9                       | 12.7 | 2                             | 2.8 |

**Results reported for sample VRE101S-09 VanB resistance gene**



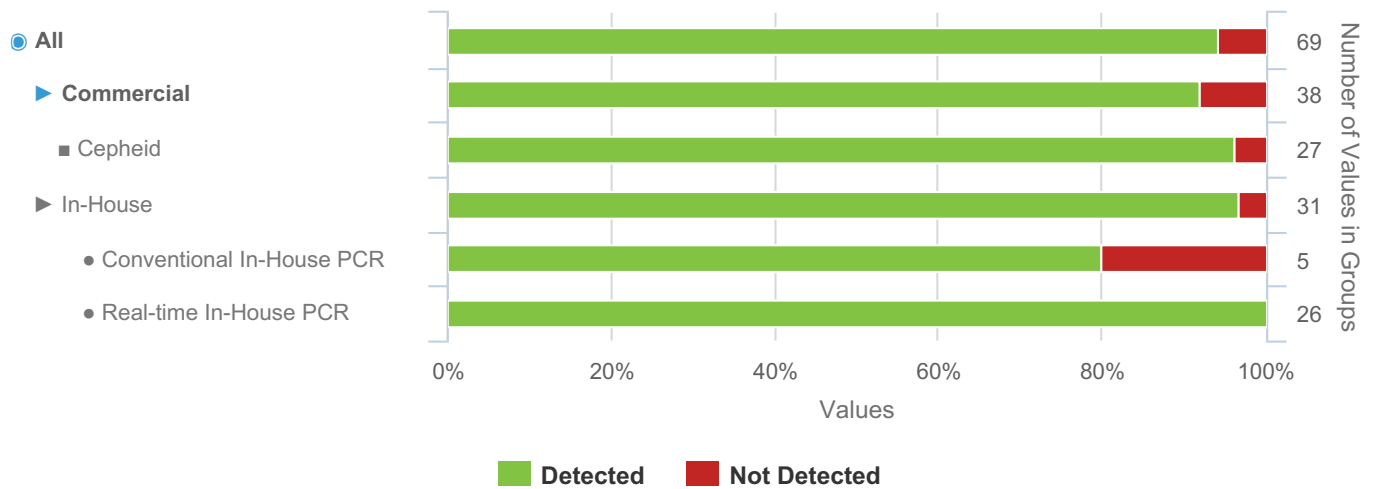
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=26)

|                                     |                           |   |   |                           |  |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|--|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           |  |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121   | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content        | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|-----------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                       |                 |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-11  | E. faecium (LMG16165) | VanA            | DS1_2                               | 62                      | 87.3 | 5                       | 7.0 | 4                             | 5.6 |

**Results reported for sample VRE101S-11 VanA resistance gene**



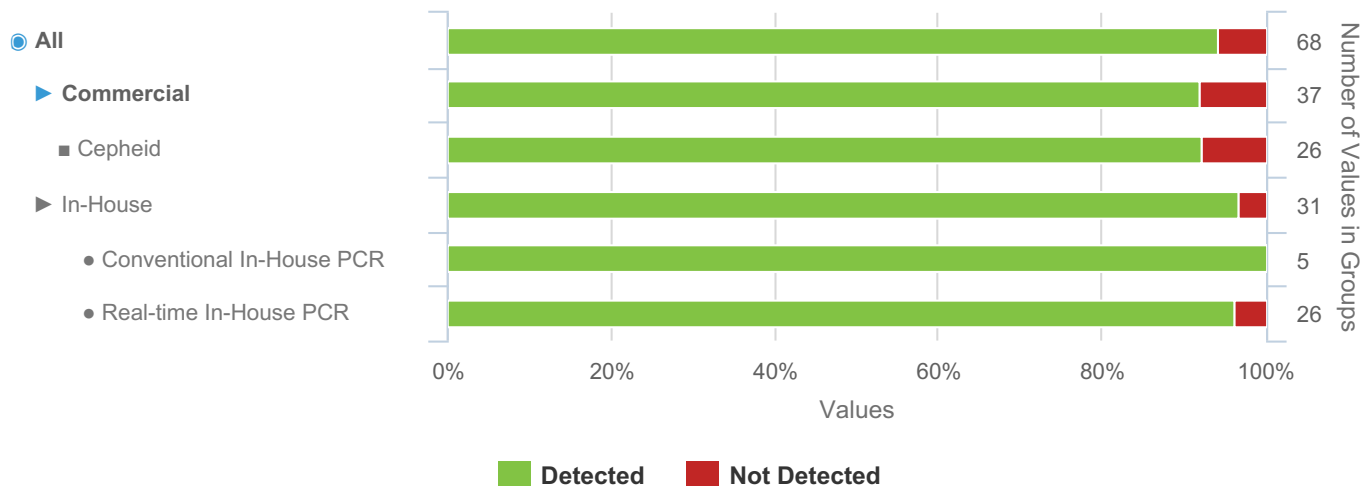
**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=27)

|                                     |                           |   |   |                           |   |                            |  |
|-------------------------------------|---------------------------|---|---|---------------------------|---|----------------------------|--|
| <b>Individual Report</b>            |                           | <b>QCMD 2020 Vancomycin Resistant Enterococci EQA Programme</b> |   |                           | <br>Quality Control for Molecular Diagnostics |                            |  |
| <b>Catalogue Code:</b><br>QAB134163 | <b>Ref Code:</b><br>VRE20 | <b>Challenge:</b><br>S  | <b>Analysis Type:</b><br>Resistance Gene Typing | <b>Dataset:</b><br>414074 | <b>Report UID:</b><br>2677/3563/3121  | <b>Laboratory</b><br>CZ023 |  |

| Sample Code | Sample Content     | Resistance Gene | Sample Relationships <sup>[1]</sup> | Positive <sup>[2]</sup> |      | Negative <sup>[2]</sup> |     | Not Determined <sup>[2]</sup> |     |
|-------------|--------------------|-----------------|-------------------------------------|-------------------------|------|-------------------------|-----|-------------------------------|-----|
|             |                    |                 |                                     | (n)                     | (%)  | (n)                     | (%) | (n)                           | (%) |
| VRE101S-12  | E. faecium (IOWA2) | VanB            |                                     | 62                      | 87.3 | 6                       | 8.5 | 3                             | 4.2 |

**Results reported for sample VRE101S-12 VanB resistance gene**



**Groups below n=5:** Amplex(n=1), Amplex Easy-Plex(n=1), BD Molecular Diagnostics(n=1), BD MAX(n=1), Certest(n=1), Certest Real Time PCR(n=1), GeneProof(n=1), GeneProof Real Time PCR Kit(n=1), Hain Lifescience(n=1), Hain Genotype Kit(n=1), Mobidiag(n=1), Mobidiag Amplidiag(n=1), QIAGEN(n=1), Qiagen PCR reagents(n=1), Seegene(n=1), Seegene Allplex(n=1), TIB MOLBIOL(n=2), TIB MOLBIOL LightMix(n=2), Vitassay(n=1), Vitassay Real-Time PCR(n=1)

**Groups Rolled Up:** Cepheid Cepheid Xpert kit(n=26)

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