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| **VITEK MS/MYLA Reporting Procedure** | | | | |
| **Purpose** | This procedure provides instructions on how to report the identification of organisms with the Vitek MS. | | | |
| **Vitek MS**  **FDA**  **Cleared Organisms** | Vitek MS IVD is a FDA 510(k) cleared system. The instrument is cleared for identification and release of results for a majority of clinically relevant organisms. Refer to the following list of organisms that are covered. View the Vitek MS Reporting Scheme for any modifications on reporting these organisms.   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | | | | |
| **Confidence Levels** | The Vitek MS displays confidence level scores for each organism that is being run. The manufacturer’s suggested cut-off values are as follows:   |  |  |  |  | | --- | --- | --- | --- | | Confidence Level | Choice | % Probability | Comments | | High: | 1 | 60 to 99.9 | Report to species level. | | Medium: | 2 to 4 | Sum = 100 | Refer to reporting scheme. If organism not listed, separate by further testing if necessary. | | No ID: | NA | NA | No significant choice | | >4 | Sum < 100 | Inconclusive identification | |  | Non-clinically Validated Isolate icon – identification does not transfer to the LIS or VITEK 2. Perform an alternate method of identification. | | |   \*\*\*ALWAYS use caution when releasing results. Ensure that plate morphology matches the result that is displayed. If this is not the case, complete further confirmatory testing. | | | |
| **MYLA: Releasing**  **Vitek**  **MS Results** | 1. Using the prep station or a network PC, double click the MYLA icon on the desktop.   \*MYLA can also be utilized by launching Internet Explorer and typing the following:[*http://mpmyla*](http://mpmyla)or 10.22.18.82   1. Enter your unique user name, password, and click the login button. 2. Ensure that the Technologist Dashboard tab is chosen. 3. In the lower portion of the screen (“To Do” tab), click the **VITEK MS Review** button (Figure 1).     Figure 1.   1. The “To Be Reviewed” tab will display results needing review. A confidence level is displayed for each isolate (Figure 2).   Confidence Level  Accession Number (ID)  Figure 2.   1. A Confidence Level is determined for the spectrum of each individual slide deposit (spot). 2. When isolates are deposited on two or more spots (i.e. run in duplicate), a Confidence Level is determined for each individual deposit. MYLA consolidates the results based on the confidence level of each deposit and the similarity of the identification results. 3. Select and individually review all High Confidence results. 4. Click the **Review** icon: . This includes any isolates that are recognized as highly pathogenic or critical: . Reviewed results will be sent through the interface into Sunquest.  1. Individually review each Medium Confidence isolate. 2. Click the Accession Number (ID) button to display the Review Detail screen. 3. For discrepant isolate results, first reacquire (re-shoot) the spectrum. If this does not help, perform additional testing or retest in a new acquisition group. See step 18 below for instructions on reacquiring the spectrum. 4. Select an identification by utilizing the General Reporting Scheme found at the end of this procedure. Click the validate button to accept this result (Figure 3).   Validate  Select Identification  Figure 3.   1. In the “To Be Reviewed” tab, select the Medium Confidence isolate and review individually. The isolate should have an identification chosen with a pencil icon next to it, confirming that it has been edited. 2. Select each isolate that has No ID. 3. If necessary, click the Accession ID button to display the Review Detail screen and note the Acquisition/Computation Messages in the last column. 4. Discard the isolate by clicking the trash can icon: .  1. To reacquire spectra (repeat) for isolates that have Low Confidence levels or have no ID, utilize the Acquisition Station. Select the spots that need to be re-shot and click Start. The calibration needs to pass again. Once the organism(s) have been re-shot, repeat steps 4-16 for resulting.  |  |  | | --- | --- | | **Additional Icons** | | |  | Print Icon – print a single page report for each isolate. | |  | Comment – enter a result comment for an isolate. This can be used to refer to additional testing that has been or needs to be performed. | |  | Information Icon – read a comment that has been entered. | | | | |
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| **VITEK**  **MS**  **Reporting**  **Scheme** | |  |  |  | | --- | --- | --- | | **What to do: *Escherichia* coli or *Shigella* species readouts on VITEK MS** | | | | **Source** | **Additional Testing** | **Reporting Instructions** | | ALL sources (except stool)  If MSID = *Escherichia coli* | Lactose Fermenter | *Escherichia coli* | | β- hemolysis on SB agar | *Escherichia coli* | | Non-Lactose Fermenter & non-hemolytic on SB agar:  Indole (+) or Indole (neg) | Run GN ID card on VITEK 2 for identification | | Stool  If MSID = *Escherichia coli* | **Then do:**  MILS & SB subculture | For the following combinations, **report NSSY**:  \*IND (+) MOT (+) LYS (P/P)  \*IND (+) MOT (+) LYS (P/Y)  \*IND (+) MOT (neg) LYS (P/P)  \*IND (neg) MOT (+) LYS (P/Y)  \*IND (neg) MOT (neg) LYS (P/P)  For the following combinations, run a GN ID on VITEK 2 for identification:  \*IND (neg) MOT (neg) LYS (P/Y)  \*IND (+) MOT (neg) LYS (P/Y) |  |  |  |  | | --- | --- | --- | | **Vitek MS General Reporting Scheme** | | | | **Vitek MS Identification** | **Reporting Instructions** | **Sunquest Code** | | *Achromobacter denitrificans*  *Achromobacter xylosoxidans*  (50.0 confidence / 50.0 confidence) | *Achromobacter* *denitrificans*/*Achromobacter xylosoxidans* | ACHDX | | *Aeromonas hydrophila/caviae*  *Aeromonas sobria*  (can be slashline between species) | *Aeromonas* species | AERO | | *Citrobacter braakii*  *Citrobacter freundii*  *Citrobacter youngae*  (can be slashline between species) | *Citrobacter freundii* complex | CIFC | | *Brucella* sp. | **DO NOT test or report by VITEK MS.**  Perform rule-out testing under the hood. Tape plates. |  | | *Enterobacter asburiae*  *Enterobacter cloacae*  (50.0 confidence / 50.0 confidence) | *Enterobacter cloacae/Enterobacter asburiae* | ENCLA | | All *Enterococcus* sp. | **Report to the species level** if MALDI is performed |  | | *Francisella* sp. | **DO NOT test or report by VITEK MS.**  Perform rule-out testing under the hood. Tape plates. |  | | *Proteus penneri*  *Proteus vulgaris*  (can be slashline between species) | *Proteus penneri*/*Proteus vulgaris* | PRVP | | *Raoultella ornithinolytica*  *Raoultella planticola*  (can be slashline between species) | *Raoultella* species | RAOSP | | *Salmonella* group | *Salmonella* species | SALM | | *Staphylococcus capitis*  *Staphylococcus cohnii*  *Staphylococcus epidermidis*  *Staphylococcus haemolyticus*  *Staphylococcus hominis*  *Staphylococcus schleiferi*  *Staphylococcus sciuri*  *Staphylococcus simulans*  *Staphylococcus warneri* | Report from the following sources:  UC, Blood, CSF, RESP, Misc. (DSK1), Sterile body fluids, and surgical tissue specimens.  Include comment **TCINS**: (“This is a coagulase negative *Staphylococcus*.”) |  | | *Staphylococcus lugdunensis*  *Staphylococcus saprophyticus* | Report with all sources. DO NOT include comment **TCINS**. | SLUG  SSAP | | *Yersinia pestis*  *Yersinia pseudotuberculosis* | **DO NOT test or report by VITEK MS.**  Perform rule-out testing under the hood. Tape plates.  \**Yersinia pseudotuberculosis* is similar in spectra to *Yersinia pestis*. |  |  1. Frequently seen organisms in the laboratory with a probability score at **> 60%** may be released as long as colonial morphology and/or gram stain morphology matches. 2. Uncommon organisms in the laboratory should be reported as presumptive or by genus only until further testing can confirm the result. This includes FDA cleared organisms that are not identified to species level for which there are no reporting rules in place. | | | |
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| **References** | MYLA Customer Training Course manual, 2016.  VITEK MS Clinical Workflow User Manual,  VITEK MS Customer Training Course manual, 2016.  VITEK MS “The Basics” manual, 2014.   1. Employee must read the procedure and training documentation. 2. Employee will observe trainer performing the procedure. 3. Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer. | | | |
| **Training Plan/ Competency Assessment** |
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| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | Andrew Fangel/  Dr. Phillip Heaton | 10/07/16 | Initial Version |
| 2 | Andrew Fangel/ Susan DeMeyere | 4/20/2018 | Re-formatted and edited various details.  Added caution message to Confidence Level section.  Updated General Reporting Scheme instructions. |
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| **Archived by:** |  | **Archived Date:** |  |