

Because NHSN did not hold the live annual training in 2020, please plan to use the 2019 NHSN Annual Training videos and slides for NHSN training throughout 2020.

Although there were not extensive changes made to the NHSN PSC protocols for 2020, NHSN wanted to note any differences between the training content provided in 2019 and the current 2020 protocols. Therefore, this document will detail changes to information presented in the 2019 videos and slides so that they align with the 2020 NHSN Patient Safety Component Manual updates.

The following slides will provide the slide number and slide information from the 2019 NHSN Training presentation and then explain updates or clarifications for 2020 related to the content provided in that particular slide.

Use and Application of the Ventilator Associated Event (VAE) Protocol



2019 Presentation, Slide 85

How do I relate my lab's semi-quantitative culture result reporting to the quantitative thresholds in the algorithm?

- Ask your laboratory manager/director first—she/he may be able to tell you
- If your laboratory does not have this information,
 - For the purposes of this surveillance, we will assume that a semi-quantitative result of “moderate” or “heavy” growth, or 2+, 3+ or 4+ growth (in a culture of lung tissue, BAL, PSB, or ETA) meets Criterion 1 of the PVAP surveillance definition.
- See FAQ # 24 in the VAE Protocol



*Reference: Garcia, LS (Ed.). (2010). Clinical Microbiology Procedures Handbook. Herndon, VA: ASM Press, page 3.2.1.16.

2020 Updates for Slide 85

How do I relate my lab's semi-quantitative culture result reporting to the quantitative thresholds in the algorithm?

- Ask your laboratory manager/director first—she/he may be able to tell you
- If your laboratory does not have this information,
 - For the purposes of this surveillance, we will assume that a semi-quantitative result of “moderate” “many”, “numerous” or “heavy” growth, or 2+, 3+ or 4+ growth (in a culture of lung tissue, BAL, PSB, or ETA) meets Criterion 1 of the PVAP surveillance definition.
- See FAQ # 24 in the VAE Protocol



*Reference: Garcia, LS (Ed.). (2010). Clinical Microbiology Procedures Handbook. Herndon, VA: ASM Press, page 3.2.1.16.

2019 Presentation, Slide 88

| How do I use the purulent respiratory secretions criterion if ... | Instruction |
|--|--|
| My laboratory reports counts of “white blood cells” or “polymorphonuclear leukocytes” or “leukocytes” rather than counts of “neutrophils”? | Assume that counts of cells identified by these other descriptors (e.g., “white blood cells”) are equivalent to counts of neutrophils, unless the laboratory tells you this is not the case. |
| My laboratory reports semi-quantitative results (not quantitative results) for numbers of neutrophils and squamous epithelial cells? | Check with the laboratory to get information about what quantitative ranges the semi-quantitative reports correspond to. |
| My laboratory cannot provide additional information on how its semi-quantitative reporting corresponds to quantitative reporting ranges for neutrophils and squamous epithelial cells? | Use the following direct examination results to meet the purulent respiratory secretions criterion: heavy, 4+, or ≥ 25 neutrophils per low power field (lpf) [x100], AND rare, occasional, few, 1+ or 2+, or ≤ 10 squamous epithelial cells per lpf [x100] [19]. |
| My laboratory reports <u>only</u> the numbers of neutrophils present, without reporting the number of squamous epithelial cells? | In this situation, the purulent secretions criterion may be met using the specified quantitative and semi-quantitative thresholds for neutrophils alone (i.e., heavy, 4+, or ≥ 25 neutrophils per lpf [x100]). |
| My laboratory uses different reporting thresholds for neutrophils and squamous epithelial cells (e.g., maximum report of ≥ 20 neutrophils per low power field [x100], or minimum report of ≤ 15 squamous epithelial cells per low power field [x100])? | In this situation, the purulent secretions criterion may be met using the laboratory’s specified maximum quantitative threshold for neutrophils, and/or minimum quantitative threshold for squamous epithelial cells. |
| My laboratory processes respiratory specimens such as bronchoalveolar lavage fluid using a centrifugation procedure (e.g., “cytopsin”), and there is no quantitation or semi-quantitation of neutrophils or white blood cells in the direct examination report? | In this situation, a report indicating the presence of white blood cells, without quantitation, is sufficient to meet the purulent secretions criterion. |

Table 2

Some clinical laboratories use different result reporting formats for respiratory secretion direct examination results



2020 Updates for Slide 88



| How do I use the purulent respiratory secretions criterion if ... | Instruction |
|---|--|
| My laboratory reports counts of “white blood cells” or “polymorphonuclear leukocytes” or “leukocytes” rather than counts of “neutrophils”? | Assume that counts of cells identified by these other descriptors (for example, “white blood cells”) are equivalent to counts of neutrophils, unless the laboratory tells you this is not the case. |
| My laboratory reports semi-quantitative results (not quantitative results) for numbers of neutrophils and squamous epithelial cells? | Check with the laboratory to get information about what quantitative ranges the semi-quantitative reports correspond to. |
| My laboratory cannot provide additional information on how its semi-quantitative reporting corresponds to quantitative reporting ranges for neutrophils and squamous epithelial cells? | Use the following direct examination results to meet the purulent respiratory secretions criterion: <u>many</u> , heavy, <u>numerous</u> , 4+, or ≥ 25 neutrophils per low power field (lpf) [x100], AND <u>no</u> , rare, occasional, few, 1+ or 2+, or ≤ 10 squamous epithelial cells per lpf [x100] [20]. |
| My laboratory reports <u>only</u> the numbers of neutrophils present, without reporting the number of squamous epithelial cells? | In this situation, the purulent secretions criterion may be met using the specified quantitative and semi-quantitative thresholds for neutrophils alone (specifically <u>many</u> , heavy, <u>numerous</u> , 4+, or ≥ 25 neutrophils per lpf [x100]). |
| My laboratory uses different reporting thresholds for neutrophils and squamous epithelial cells (for example, maximum report of ≥ 20 neutrophils per low power field [x100], or minimum report of ≤ 15 squamous epithelial cells per low power field [x100])? | In this situation, the purulent secretions criterion may be met using the laboratory’s specified maximum quantitative threshold for neutrophils, and/or minimum quantitative threshold for squamous epithelial cells. |
| My laboratory processes respiratory specimens such as bronchoalveolar lavage fluid using a centrifugation procedure (for example, “cytospin”), and there is no quantitation or semi-quantitation of neutrophils or white blood cells in the direct examination report? | In this situation, a report indicating the presence of white blood cells, without quantitation, is sufficient to meet the purulent secretions criterion. |

Table 2
Some clinical laboratories use different result reporting formats for respiratory secretion direct examination results



2019 Presentation, Slide 119

VAE Calculator

<http://www.cdc.gov/nhsn/VAE-calculator/index.html>

National Healthcare Safety Network (NHSN)

CDC > NHSN > Materials for Enrolled Facilities



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Acute Care Hospitals/Facilities +

Long-term Acute Care
Hospitals/Facilities +

Ventilator-Associated Event Calculator (Version 6.0)

Welcome to Version 6.0 of the VAE Calculator. Version 6.0 operates based upon the currently posted VAE protocol. The Calculator is a web-based tool that is designed to help you learn how the VAE surveillance definition algorithm works and assist you in making VAE determinations. Please note that the VAE Calculator will not ask you to enter any patient identifiers (other than dates of mechanical ventilation, which you can change as you see fit). The VAE Calculator does not store any patient data that you enter, and it will not report any data that you enter or any VAE determinations to the NHSN. You will not be able to export data entered into the Calculator. If you have questions or suggestions about the Calculator, please feel free to send them to the NHSN mailbox, nhsn@cdc.gov.



Ventilator-Associated Event (VAE) Calculator

Version 6.0

(must have javascript enabled)

2020 Updates for Slide 119

VAE Calculator

<http://www.cdc.gov/nhsn/VAE-calculator/index.html>

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Ventilator-Associated Event Calculator (Version 7.0)

Welcome to Version 6.0 of the VAE Calculator. Version 6.0 operates based upon the currently posted VAE protocol. The Calculator is a web-based tool that is designed to help you learn how the VAE surveillance definition algorithm works and assist you in making VAE determinations. Please note that the VAE Calculator will not ask you to enter any patient identifiers (other than dates of mechanical ventilation, which you can change as you see fit). The VAE Calculator does not store any patient data that you enter, and it will not report any data that you enter or any VAE determinations to the NHSN. You will not be able to export data entered into the Calculator. If you have questions or suggestions about the Calculator, please feel free to send them to the NHSN mailbox, nhsn@cdc.gov.



Ventilator-Associated Event (VAE) Calculator

(must have javascript enabled)

Update to Version 7.0 does not impact the VAE Calculator Functionality

Antimicrobial Agent List Updates:

Agents Added: Baloxavir marboxil, Eravacycline, Omadacycline and Plazomicin

Agents Removed: Ceftizoxime, Sulfisoxazole, Telithromycin, Ticarcillin/Clavulanate