

Table1: Comparing two different criteria for identifying VAE : the 2013 Adult VAE criteria, and the newly pediatric VAE criteria

Ventilator-Associated Events (VAE) Surveillance Algorithm for adults CDC 2013	Pediatric Ventilator-Associated Events (PedVAE) Surveillance Algorithm CDC 2020
<ul style="list-style-type: none"> • Patient has a baseline period of stability or improvement on the ventilator, defined by ≥ 2 calendar days of stable or decreasing daily minimum FiO_2 or PEEP values. 	<ul style="list-style-type: none"> • Patient has a baseline period of stability or improvement on the ventilator, defined by ≥ 2 calendar days of stable or decreasing daily minimum FiO_2 or MAP values..
<ul style="list-style-type: none"> • After a period of stability or improvement on the ventilator, the patient has at least one of the following indicators of worsening oxygenation: <ul style="list-style-type: none"> 1) Increase in daily minimum FiO_2 of ≥ 0.20 over the daily minimum FiO_2 of the first day in the baseline period, sustained for ≥ 2 calendar days. 2) Increase in daily minimum PEEP values of $\geq 3 \text{ cmH}_2\text{O}$ over the daily minimum PEEP of the first day in the baseline period, sustained for ≥ 2 calendar days. 	<ul style="list-style-type: none"> • After a period of stability or improvement on the ventilator, the patient has at least one of the following indicators of worsening oxygenation: <ul style="list-style-type: none"> 1)Increase in daily minimum FiO_2 of ≥ 0.25 over the daily minimum FiO_2 of the first day in the baseline period, sustained for ≥ 2 calendar days. 2) Increase in daily minimum MAP values of $\geq 4 \text{ cmH}_2\text{O}$ over the daily minimum MAP of the first day in the baseline period, sustained for ≥ 2 calendar day

Table 2: Infection-related Ventilator-Associated Complication (IVAC) and Possible Ventilator-Associated Pneumonia (PVAP) Criteria for adults CDC 2020

Infection-related Ventilator-Associated Complication (IVAC) Criteria	Possible Ventilator-Associated Pneumonia (PVAP) Criteria
<ul style="list-style-type: none"> On or after calendar day 3 of mechanical ventilation and within 2 calendar days before or after the onset of worsening oxygenation, the patient meets both of the following criteria: <ol style="list-style-type: none"> 1) Temperature $> 38^{\circ}\text{C}$ or $< 36^{\circ}\text{C}$, OR white blood cell count $\geq 12,000$ cells/mm³ or $\leq 4,000$ cells/mm³. <p>AND</p> <ol style="list-style-type: none"> 2) A new antimicrobial agent(s) started, and is continued for ≥ 4 antimicrobial days 	<ul style="list-style-type: none"> On or after calendar day 3 of mechanical ventilation and within 2 calendar days before or after the onset of worsening oxygenation, ONE of the following criteria is met <ol style="list-style-type: none"> 1) Positive culture of one of the following specimens, (endotracheal aspirate, bronchoalveolar lavage, lung tissue, protected specimen brush) without requirement for purulent respiratory secretions. 2) Purulent respiratory secretions PLUS organism identified from one of the following specimens (Sputum, endotracheal aspirate, bronchoalveolar lavage, lung tissue, protected specimen brush). 3) One of the following positive tests: <ul style="list-style-type: none"> - Organism identified from pleural fluid, - Lung histopathology, - Diagnostic test for Legionella species, - Diagnostic test on respiratory

	secretions for viral organism.
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Table 3: Baseline patient characteristics (n=91)

Age (years), median	13 months
Minimum- maximum	1 months- 16 years
1 months-12 months of age	44 (48.4%)
>12 months of age-6 years	37 (40.6%)
>6 years	10 (11.0 %)
Gender, n (%)	
Female	42 (46.2%)
Male	49 (53.8%)
Pre-existing conditions n (%)	
<i>Neurological</i>	38 (41.8)
<i>Cardiovascular</i>	17 (18.7)
<i>Metabolic</i>	16 (17.5)
<i>Respiratory</i>	7 (7.7)
<i>Immunocompromise</i>	4 (4.4)
<i>Other</i>	6 (6.6)
<i>None</i>	3 (3.3)

Tracheostomy, n (%)	23(25.2)
Mortality, n (%)	19(20.8)

Table 4: Comparison with previous surveillance criteria with adult diagnostic criteria

	N (%)	Mortality (%)
PedVAE	52 (57.2%) (52/91)	13 (25%) (13/52)
Adult VAC	10	2
Adult IVAC	11	4
Adult PVAP	31	7
NonPedVAE	39 (42.8%) (39/91)	6 (15.3%) (6/39)