

Additional analyses: microbiological sputum reports and antimicrobials administered**Screening or physician diagnosis of VAP and report of infected or colonised sputum**

Post hoc analyses revealed no significant associations between checklist or physician diagnosis of VAP and microbial growth (infected or colonised sputum). There were 135 daily microbiology reports of sputum specimens during the 1,692 data collection days; 31 patients (41 reports) received a positive report for colonised sputum and 52 had positive reports for infected sputum (94 reports). The number of patients with a positive sputum microbiology report (either colonised or infected) for each method of reporting VAP is provided in Supplementary Table 1. This small number of identified VAP cases who received microbiological sputum reports and the number of patients who received positive sputum microbiology reports both when VAP was present and absent (different reports received on separate days) precluded further analyses.

Supplementary Table 1 **Number of available daily microbiology reports of sputum**

VAP	Sputum		Total	Pearson Chi ² ^a	<i>p</i>
	Number of days (patients)				
	Colonised	Infected			
Checklist (4 items; excluding microbial growth)	No	38 (29) ^b	89 (50) ^c	0.204	0.64
	Yes	3 (3)	5 (5)		
	Total	41	94		
			127 (79)		
Checklist (all 5 items)	No	40 (31) ^b	90 (50) ^d	0.263	0.61
	Yes	1 (1)	4 (4)		
	Total	41	94		
			130 (81)		
Physician diagnosis (all reports)	No	38 (29) ^e	90 (51) ^f	0.544	0.45
	Yes	3 (3)	4 (4) ^g		
	Total	41	94		
			128		
					7
					135

Notes

^a performed for the number of days sputum was reported as colonised or infected (not the number of patients with sputum microbiology reports)

^b One patient with a report of colonised sputum had a positive screening and negative screening for VAP using the 4- and 5- item checklist on separate days

^c Three patients with a report of infected sputum had a positive screening and negative screening for VAP using the 4- and 5- item checklist on separate days

^d Two patients with a report of infected sputum had a positive screening and negative screening for VAP using 5- item Checklist on separate days

- ^e One patient with a report of colonised sputum had a positive and negative report of physician diagnosis of VAP on separate days
- ^f Three patients with a report of infected sputum had positive and negative reports of physician diagnosis of VAP on separate days
- ^g Included two patients not receiving mechanical ventilation at time of VAP diagnosis

Administration of antimicrobials for patients with a screening or physician diagnosis of VAP

Supplementary Table 2 highlights that the number of patients who received antimicrobials in the presence of a positive 4-item VAP checklist or a physician diagnosis was 21 and 25, respectively. Similarly, the number of days antimicrobials were administered was 55 and 83, respectively.

Supplementary Table 2 Number of patients administered antimicrobials (excluding overlap diagnoses) and Number of days each antimicrobial administered

Antimicrobial type	4-item VAP checklist		Physician-diagnosed VAP	
	Patients (%)	Days, n	Patients (%)	Days, n
Antibiotic	19 (65)	50	24 (80)	80
Antifungal	2 (7)	4	1 (3)	2
Antiviral	0	1	0	1
Total	21 (72)	55	25 (83)	83