

Assessment of ventilator-associated pneumonia bacterial pathogens within 3 years in a tertiary hospital

İlknur Esen Yıldız*, Kazım Şahin^{†,1}, Tuba İlgar*, Ayşe Ertürk* and Emine Sönmez*

*Recep Tayyip Erdoğan University Medical School Training and Research Hospital, Infectious Diseases and Clinical Microbiology, Rize, Turkey, [†]Recep Tayyip Erdoğan University Medical School Training and Research Hospital, Medical Microbiology, Rize, Turkey

INTRODUCTION

Ventilator-associated pneumoniae (VAP) which develops in patients given mechanical ventilation is a common cause of nosocomial infection in intensive care units (ICUs) and has high mortality rates. The prevalence of causative organisms of VAP should be assessed in every hospital. In this paper, we present the distribution of VAP bacterial pathogens in ICUs of our hospital.¹⁻⁵

MATERIALS AND METHODS

The patients diagnosed with VAP between January 9, 2015 and January 9, 2017 in ICUs of Recep Tayyip Erdoğan University Training and Research Hospital were included in our study. The records of infection control committee were analyzed retrospectively. Results of the tracheal aspirate cultures were noted.

FINDINGS

In ICUs of our hospital, 61 patients in 2015, 78 patients in 2016, and 109 patients in 2017 were diagnosed with VAP. The most frequent bacterial pathogen of VAP was *Acinetobacter* spp. in all 3 years. In 2017, the rates of *Klebsiella* spp., *Escherichia coli*, *Burkholderia cepacia*, and *Stenotrophomonas maltophilia* infections were higher compared with previous years (Table 1; Figure 1).

CONCLUSION

As in our hospital, *Acinetobacter* is the most common cause of VAP in our country. Over the years, it has been shown that *Burkholderia* infections are increased as well as multidrug-resistant *Acinetobacter* infections. Therefore, continuing education should be planned in order to increase health-care workers' awareness; infection control measures and empiric antibiotic use should be reassessed.

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[†]Corresponding author: Recep Tayyip Erdoğan University Medical School Training and Research Hospital, Medical Microbiology, Rize, Turkey.
E-mail: ksahin3@myynet.com

■ Table 1 Distribution of VAP bacterial pathogens according to years in our hospital

Bacterial pathogens	2015		2016		2017	
	n	%	n	%	n	%
<i>Acinetobacter</i> spp.	46	75.41	56	71.8	59	54.13
<i>Pseudomonas</i> spp.	6	9.84	12	15.38	9	8.26
<i>Staphylococcus aureus</i>	3	4.92	2	2.56	5	4.59
<i>Klebsiella</i> spp.	2	3.28	4	5.13	13	11.93
<i>Enterobacter</i> spp.	2	3.28	2	2.56	0	0
<i>Serratia marcescens</i>	2	3.28	0	0	5	4.59
<i>Escherichia coli</i>	0	0	2	2.56	9	8.26
<i>Burkholderia cepacia</i>	0	0	0	0	5	4.59
<i>Stenotrophomonas maltophilia</i>	0	0	0	0	3	2.75
<i>Proteus</i> spp.	0	0	0	0	1	0.92

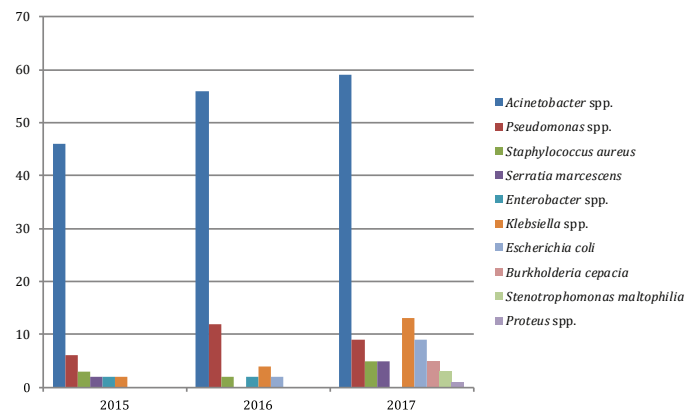


Figure 1 Distribution of VAP bacterial pathogens according to years in our hospital.

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