

# Carbapenem-resistant *Enterobacteriaceae* Surveillance Report

April - June, 2019

Carbapenem-resistant *Enterobacteriaceae* (CRE) are a family of bacteria with high levels of resistance to antibiotics. Data from reported, confirmed CRE cases occurring in April-June, 2019 (n=56) are displayed. Twenty-nine of the cases were lab-confirmed to be carbapenemase-producing CRE (CP-CRE), 16 were non-CP CRE and 11 were pending testing or not tested. Available CP mechanisms are shown in the table below. Not all isolates were sent for mechanism testing.

Carbapenemase-Producing (CP) Status of Confirmed Cases	
CP-CRE	29
Non-CP CRE	16
CP Status Pending/ Not Tested	11
<b>Total Confirmed CRE Cases</b>	<b>56</b>

## CRE Counts<sup>1</sup>, by Genus Species and Mechanism (n=56)

Genus Species	Total CRE n (%)	KPC	NDM	IMP	OXA-48	VIM	Mech. Not Tested	Total CP-CRE
<i>Klebsiella pneumoniae</i>	22 (39.3)	15	1	.	1	.	.	17
<i>Enterobacter cloacae</i>	7 (12.5)	2	.	.	.	.	.	2
<i>Morganella morganii</i>	6 (10.7)	1	.	.	.	.	1	2
<i>Enterobacter aerogenes</i>	4 (7.1)	.	.	.	.	.	.	.
<i>Escherichia coli</i>	4 (7.1)	2	1	.	.	.	.	3
<i>Proteus mirabilis</i>	3 (5.4)	.	.	.	.	.	.	.
Other <i>Klebsiella</i> spp.	3 (5.4)	3	.	.	.	.	.	3
Other <i>Citrobacter</i> spp.	2 (3.6)	2	.	.	.	.	.	2
Other <i>Enterobacteriaceae</i>	5 (8.9)	.	.	.	.	.	.	.
<b>Total</b>	<b>56</b>	<b>25</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>29</b>

<sup>1</sup>not all isolates sent for mechanism testing.

1<sup>st</sup>

OXA-48 found in an isolate since surveillance began

## Epidemiological Characteristics of CRE Cases (n=56)

Characteristics	Yes	No	Unknown
Philadelphia Resident	44 (78.6)	12 (21.4)	0 (0.0)
LTCF Resident	21 (37.5)	7 (12.5)	28 (50.0)
History of CRE	5 (8.9)	17 (30.4)	34 (60.7)
Fatal	1 (1.8)	15 (26.8)	40 (71.4)

## Action Steps

- Report CRE cases to the Philadelphia Dept. of Public Health within **5 days**
- Include Antimicrobial Susceptibility Testing results with CRE report

## CRE Cases, by Carbapenemase-Producing (CP) Status: July 2018 – June 2019

358  
CRE Cases

43%  
CP-CRE

31%  
Non-CP CRE

26%  
Pending/Not Tested

