Carbapenem-resistant *Enterobacteriaceae* Surveillance Report

Department of Public Health
CITY OF PHILADELPHIA

October - December, 2019

Carbapenem-resistant *Enterobacteriaceae* (CRE) are a family of bacteria with high levels of resistance to antibiotics. Data from reported, confirmed CRE cases, to the Philadelphia Department of Public Health, occurring in October-December, 2019 (n=66) are displayed. Forty of the cases were lab-confirmed to be carbapenemase-producing CRE (CP-CRE), 12 were non-CP CRE and 14 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	40 (61%)
Non-CP CRE	12 (18%)
CP Status Pending/ Not Tested	14 (21%)
Total Confirmed CRE Cases	**66**

Second Quarter in a row
More NDM+ organisms found per quarter than ever before

CRE Counts[1], by Genus Species and Mechanism (n=66)

Genus Species	Total CRE n (%)	KPC	NDM	OXA-48	IMP	VIM	Mech. Not Tested	Total CP-CRE
Klebsiella pneumoniae	32 (48.5)	22	2	.	.	.	.	24
Escherichia coli	13 (19.7)	7	4	.	.	.	.	11
Enterobacter aerogenes	5 (7.6)	.	.	.	.	.	.	0
Enterobacter cloacae	5 (7.6)	2	.	.	.	.	.	0
Morganella morganii	4 (6.1)	.	.	.	.	.	.	0
Other *Citrobacter Spp*	2 (3.0)	2	.	.	.	.	.	2
Proteus mirabilis	1 (1.5)	.	.	.	.	.	.	0
Providencia Spp.	1 (1.5)	.	.	.	.	.	.	0
Serratia marcescens	1 (1.5)	.	.	.	.	.	.	0
Other Enterobacteriaceae	2 (3.0)	1	.	.	.	.	.	1
Unknown species	1 (1.5)	.	.	.	.	.	.	0
Total	**66**	**34**	**6**	**0**	**0**	**0**	**0**	**40**

[1]not all isolates sent for mechanism testing,

Epidemiological Characteristics of CRE Cases (n=66)

Characteristics	Yes	No	Unknown
Philadelphia Resident	45 (68.2)	21 (31.8)	0 (0.0)
LTCF Resident	17 (25.8)	32 (48.5)	17 (25.8)
Invasive Device(s)	23 (34.8)	7 (10.6)	36 (54.5)

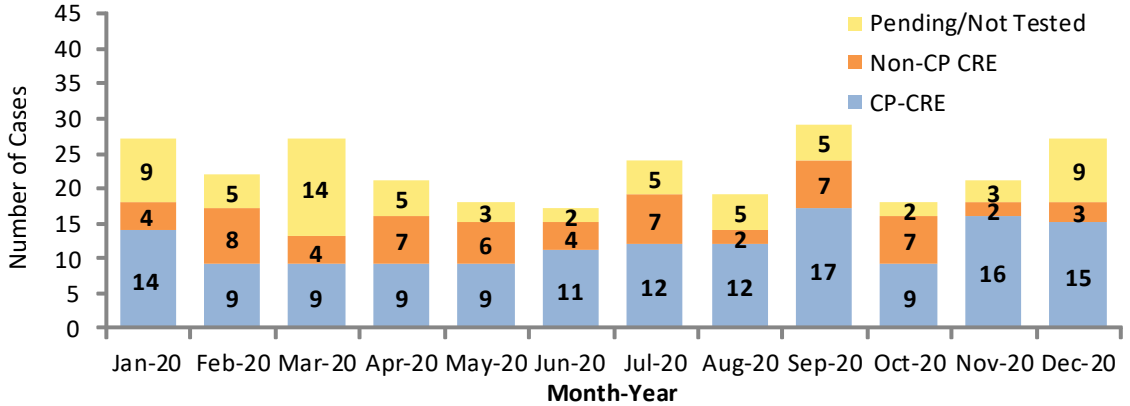
CRE Cases, by Carbapenemase-Producing (CP) Status: January 2019 – December 2019

270 CRE Cases

203 (75%) Tested for CP Status

70% CP-CRE

30% Non-CP CRE



Report CRE cases using the CRE report form available at hip.phila.gov