

# KPC-3–Producing *Serratia marcescens* Outbreak between Acute and Long-Term Care Facilities, Florida, USA

## Appendix

**Appendix Table 1.** Interventions to prevent spread of KPC-producing *Serratia marcescens* bacteria in healthcare facilities, Florida, USA

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Bundle of interventions to prevent hospital-acquired infections (HAI) in place before outbreak of *Serratia marcescens* carrying *bla<sub>KPC3</sub>* within a large healthcare network in Miami, Florida

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- Daily bathing with chlorhexidine gluconate foam, nasal decolonization with alcohol-based nasal sanitizer, and daily distribution of alcohol-based wipes for patients' hand hygiene for all adults in all units.
- AST for CPE carriage in perirectal swab and tracheal aspirate (vented patient) upon admission and weekly thereafter to all adult ICU patients.
- Enhanced contact precautions for patients infected or colonized with any CPE.
- Environmental cleaning monitoring with UV powder.

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Elements of enhanced contact precautions for CPE patients

- Private room setting.
- Dedicated patient care equipment.
- Different color-coded isolation sign at the patient's room entrance.
- Patient's room cleaning with bleach-based products twice a day.
- Disposable gowns and gloves for contact isolation.
- Patient and family/visitor education.
- Staff cohorting.

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AST, active surveillance testing; CPE, carbapenemase-producing *Enterobacteriales*; ICU, intensive care unit; UV, ultraviolet.

**Appendix Table 2.** Susceptibility testing of CZA against 3 *Serratia marcescens* carrying *bla<sub>KPC-3</sub>* from an outbreak in Miami, Florida

Isolate	E-test MIC	Comments
ATCC 25922	0.032	
S-505	0.5	Both plasmid
S-514	0.5	KP46 plasmid only
S-520	0.047	NJST258 plasmid only

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CZA, ceftazidime/avibactam. CZA MIC in isolates with 2 plasmids is not any higher than that of single plasmid, which was expected. CZA resistance usually requires KPC mutations; none were present in the isolates. The variation seen between S-520 and S-505 and S-514 was probably driven not by KPC, but by other  $\beta$ -lactamases, porins, or efflux. The isolates were quite distinct from each other.