County of San Diego Multi-Drug-Resistant Organism Tier List and Guidance

For reporting: Contact COSD Epidemiology/Healthcare-associated Infections Program at:
(619) 692-8499 or fax CMR to (858) 715-6458
Inquiries: PHS.HAI.HHSA@sdcounty.ca.gov

Tier	Tier Description	List of MDROs	Public Health Procedure	Transmission-Based Precautions Guidance[1]			
				Long-Term and Short Stay Acute Care Hospitals	Skilled nursing facilities (SNF) [Ventilator SNF or non-Ventilator SNF]	Acute Rehab Unit	Residential Care Facilities or Assisted Living Facilities
Tier 1	Pathogens or resistance mechanisms that are **never or very rarely** detected in COSD. (With COSD consultation)	• Novel Resistant Organisms • Novel Resistance mechanism • Novel Pan-resistant organism • *Candidozyma auris* – echinocandin resistant • *Candidozyma auris* – any case in a pediatric setting • Any CPO case in a pediatric setting without international healthcare exposure	• Public health investigation with review of epidemiologic information, medical records, and contact tracing. • Isolates **(2)** should be submitted to COSD PHL for additional testing.	Contact Precautions until further public health guidance	Contact Precautions until further public health guidance	Contact Precautions until further public health guidance	Public health will provide additional guidance.
Tier 2	Pathogens or resistance mechanisms **periodically** detected in COSD.	• CP-CRE that is **not** KPC or NDM • CP-CRAB that is **not** OXA-23 or OXA 24/40 • CP *Pseudomonas spp.* • *Candidozyma auris*	• Public health investigation with review of epidemiologic information, medical records, and contact tracing. • Isolates **(2)** should be submitted to COSD PHL for additional testing.	Contact Precautions **(4)**	Enhanced Barrier Precautions **(6)** Contact Precautions **(6)**	Contact Precautions **(4)**	Use gowns and gloves during close prolonged contact and for any medical procedure.
Tier 3	Pathogens or resistance mechanisms **routinely** detected in COSD.	• KPC CP-CRE • NDM CP-CRE • OXA-23 CP-CRAB • OXA-24/40 CP-CRAB • CRAB with unknown CP status **(7)**	• Unusual epidemiology (3), increase in cases, or suspected clusters or outbreaks would prompt additional public health investigation. • Isolates (2) should be submitted to COSD PHL upon request.	Contact Precautions **(4)**	Enhanced Barrier Precautions **(6)** Contact Precautions **(6)**	Contact Precautions **(4)**	Use gowns and gloves during close prolonged contact and for any medical procedure.
Tier 4	Pathogens or resistance mechanisms **endemic** in COSD.	• Multi-drug-resistant *Pseudomonas aeruginosa* **(7)** • ESBL-producing organisms • MRSA • VRE	• Unusual epidemiology **(3)** increases in cases, or suspected clusters or outbreaks may prompt public health investigation. • Isolates **(2)** may be requested by public health.	Contact Precautions with considerations **(4), (5), (7)**	Follow facility policies **(5), (6)**	Contact Precautions with considerations **(4), (5), (7)**	No special precautions. Use gown & gloves for any medical procedure.

NOTES

1. Standard Precautions is implicit for all patient care activities; consider use of additional PPE based on facility policy, clinical presentation, and colonization site of MDRO.
2. Contact COSD HAI Program for isolate submission logistics and pathogen/resistance criteria.
3. Unusual epidemiology includes travel history or atypical patient populations (e.g., pediatrics).
4. CDPH Guidance for Short-stay Acute Care Hospitals on the Duration of Contact Precautions for patients with CPO: www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/ContactPrecautionsDurationCRO.pdf
5. Data supporting the use of contact precautions as a way of preventing MRSA and VRE transmission in non-outbreak healthcare settings are mixed:
   - SHEA/IDSA/APIC Practice Recommendation: https://doi.org/10.1017/ice.2023.102
   - LA County: www.publichealth.lacounty.gov/acd/RethinkingContactPrecautions/index.htm
6. Enhanced Barrier Precautions (EBP): CDC: www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/faqs.html
7. CDPH CPO Quick sheet: www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/CPOQuicksheet_Only.pdf

KEY

APIC	Association for Professionals in Infection Control & Epidemiology	**KPC**	Klebsiella pneumoniae carbapenemase
CDC	Centers for Disease Control & Prevention	**MDRO**	Multidrug Resistant Organism
CDPH	California Department of Public Health	**MRSA**	Methicillin Resistant *Staphylococcus aureus*
COSD	County of San Diego	**NDM**	New Delhi metallo-beta-lactamase
CP	Carbapenemase-producing	**PHL**	Public Health Laboratory
CPO	Carbapenemase-producing Organism		
CRAB	Carbapenem-resistant *Acinetobacter baumannii*	**OXA**	Oxacillinase
CRE	Carbapenem-resistant Enterobacterales	**SHEA**	Society for Healthcare Epidemiology of America
ESBL	Extended-Spectrum Beta-Lactamase-producing	**VRE**	Vancomycin Resistant Enterococci
IDSA	Infectious Diseases Society of America		