Klebsiella pneumoniae KPC carbapenemase

Why is KPC important?

KPC-producing bacteria create an enzyme that **inactivates the antibiotic** designed to treat them and **can transfer resistance**, making them very difficult or impossible to treat.

When these bacteria enter the body, they can **cause serious infections.** Examples include pneumonia, meningitis, and urinary tract, wound, and surgical site infections.

KPC can spread easily from facility to facility.

Who is most at risk?

Those who have:

- Recent admission to nursing homes or intensive care unit.
- Underlying medical conditions or are immunocompromised.
- Recent surgery or wounds.
- Invasive medical devices.
- Had long courses of certain antibiotics.
- Health care or procedures outside the U.S. in the last 12 months.

Pathways (how it is transmitted)

Touch:

- Direct person-to-person contact (contaminated hands, often via health care workers).
- Indirect contact (contaminated surfaces, equipment, or medical devices).

Tasks involving:

- Complex medical care or high-contact care activities.
 - Examples may include toileting, bathing, wound care, ventilator and catheter care.

Infection prevention & control (IPC) actions

- Perform hand hygiene
- Standard and Contact Precautions
- Personal protective equipment (PPE):
 - Correct sequence of donning, doffing, and disposal.
- Environmental cleaning and disinfecting:
 - Clearly define role responsibilities for cleaning and disinfecting.
 - Follow your facility's cleaning and disinfection protocols.
 - Clean and disinfect high touch surfaces frequently and shared medical equipment after each use.
- Plumbing:
 - Avoid discarding beverages/nutrient sources in sinks or toilets.
 - Keep patient care items at least 3 feet away from sinks, toilets, and hoppers.
 - Do not discard patient waste in sinks.

Role/setting-specific IPC

Environmental services (EVS): Perform daily and terminal cleaning with EPA health care registered disinfectants. Use disinfectant in rooms and in care areas. Follow the label instructions. Focus on shared equipment, sinks, toilets, and high touch surfaces.

Patient/resident/client placement:

Private room, private bathroom, and dedicated equipment when possible.

Transferring facilities:

Ask about patient/resident/client MDRO infection/colonization status.

Health care settings:

Wear a gown and gloves for care according to the guidelines for your setting (e.g., Contact Precautions in acute care, Enhanced Barrier Precautions in long-term care).



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