



Klebsiella pneumoniae

General Information

Klebsiella pneumoniae is an encapsulated, non-motile Gram-negative bacterium that belongs to the family *Enterobacteriaceae*. It is a human pathogen found in normal gut flora that can cause pneumonia or bloodstream infections.

Host Range

Humans and animals. The primary reservoir is infected humans.

Incubation Period

Not well understood.

Survival Outside Host

Does not grow well on human skin but can survive well on other surfaces and in the environment.

Laboratory Hazards

Inhalation of infectious aerosols, mucous membrane exposure, parenteral inoculation, ingestion

Symptoms of Exposure

Pneumonia symptoms: flu-like symptoms high fevers, chills, shortness of breath, cough with mucous

CNS infection: dizziness, headache, nausea

Liver abscess: pain in abdomen, fever, nausea, weight loss, night sweats

Lab Acquired Infections (LAIs)

At least 1 documented LAI

Personal Protective Equipment



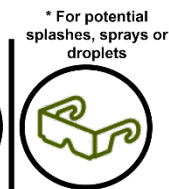
Lab Coat



Gloves



Closed-toed
Shoes



*Eye Protection

* For potential
splashes, sprays or
droplets

Disinfection & Inactivation

1-10% bleach, 70% ethanol.

Waste Management

Refer to [USC's Biological and Infectious Waste Management Plan](#).

Lab Containment

[Biosafety Level 2 \(BSL-2\)](#) for activities with materials and cultures known or reasonably expected to contain *K. pneumoniae*.

Animal Containment

[Animal Biosafety Level 2 \(ABSL-2\)](#) for activities with experimentally infected animals.

Medical Surveillance/Treatment

Surveillance: monitor for symptoms; isolation from specimens (blood, mucous, urine) and grown in media for serotyping or biotyping.

Prophylaxis: none

Vaccines: none

Treatment: antibiotics; has shown resistance to penicillins

Spill Procedures

See [USC Biological Spill Procedures](#)

Exposure Procedures

See [USC Protocol for Post Exposure Evaluation and Follow-up](#). Use of sharps should be strictly limited. A biosafety cabinet should be used when there is a potential to create aerosols or droplets.

References

Public Health Agency of Canada. *Klebsiella* spp.
<https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/klebsiella.html>

CDC. *Klebsiella pneumoniae* in Healthcare Settings.
<https://www.cdc.gov/HAI/organisms/klebsiella/klebsiella.html>