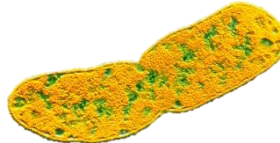




Klebsiella



General Information

Klebsiella [kleb-see-ell-uh] is a Gram-negative bacteria (bacillus) that can cause different types of healthcare-associated infections, including pneumonia, bloodstream infections, wound or surgical site infections (SSI), and meningitis. This organism is normally found (normal flora) in the human intestines and is usually excreted in human stool. In healthcare settings, *Klebsiella* infections commonly occur among sick patients who are receiving treatment for other conditions. Patients at a higher risk, are those whose care requires devices like ventilators or intravenous catheters. If antibiotics are administered for prolonged periods of time, the *Klebsiella* organism may develop resistance. Healthy people usually do not get *Klebsiella* infections.

Transmission

In healthcare settings, *Klebsiella* bacteria can be spread through person-to-person contact. This may occur via the contaminated hands of healthcare personnel, or by contamination of the environment or equipment. As stated above, patients whose care requires them to be on a ventilator, or have intravenous catheters (PICC or atrial lines), or wounds that are caused by either injury or due to surgical procedures are at a greater risk of acquisition.

Prevention

To prevent spreading *Klebsiella* infections between patients, healthcare personnel must follow specific infection control precautions. Hand hygiene is essential in the prevention of transmission. If the *Klebsiella* has developed resistance, then it would be necessary to place the patient/resident onto Contact Precautions which will include wearing gowns and gloves when they enter room.

Healthcare facilities must also follow proper cleaning procedures to prevent the spread of *Klebsiella*. Certain protocols should be followed to prevent device-associated infections, wound infections and SSIs.



Drug-resistant *Klebsiella*

Some *Klebsiella* strains have become highly resistant to antibiotics. This occurs when bacteria such as *Klebsiella pneumoniae* produce an enzyme known as a carbapenemase (referred to as KPC-producing organisms). *Klebsiella* species belongs to the family Enterobacteriaceae, a normal flora of the gastrointestinal tract that can become carbapenem-resistant (CRE stands for carbapenem-resistant Enterobacteriaceae). Unfortunately; carbapenems are often the last line of defense against Gram-negative infections that are resistant to other antibiotics (see CRE CleanPath document for more information).

Treatment











Klebsiella infections that are not drug-resistant can be treated with antibiotics. Infections caused by KPC-producing bacteria can be difficult to treat because fewer antibiotics are effective against them. In such cases, a microbiology laboratory must run tests to determine which antibiotics will treat the infection.

Guidelines and Recommendations

There are no guidelines specific for this organism. Healthcare facilities must follow the general guidelines for hand hygiene, environmental hygiene, and guidelines for the prevention of device-associated infections and SSI.

Cleaning and Disinfection

Klebsiella is a Gram-negative bacillus which is susceptible to the following Diversey disinfectants:

Product	Oxivir® 1 RTU / Wipes	Oxivir® Tb RTU / Wipes	Oxivir® Five 16	Alpha® HP Multisurface Disinfectant Cleaner	Avert™ Sporicidal Disinfectant Cleaner/Wipes	Virex® II 256	Virex® Tb	Virex® Plus	Expose® II 256	MoonBeam®3 UV Disinfection
Contact Time (Min)	1	1	5	5	1	5	3	3	10	3
										
Product	Oxivir® Tb RTU / Wipes	Oxivir® Plus (Concentrate)	Virox® 5 Concentrate	Virox® 5 (RTU & Wipes)	Percept™ (TMMC) (Concentrate, RTU & Wipes)	Virex® II 256	Avert™ Disinfectant Cleaner	MoonBeam®3 UV Disinfection		
Contact Time (Min)	1	5	5	5	5	5	1	3		
										

References: www.CDC.gov