	Pseudomonas aeruginosa	Psuedomonas fluorescens	Psuedomonas putida	Psuedomonas stutzeri
Group	flourescent	flourescent	flourescent	nonfluorescent
Gram reaction	GNR/CB	GNR/CB	GNR/CB	GNR/CB
Odor	grape-like, "tortilla chips"			
Hemolysis	beta			
Motility	positive, polar flagella	positive, polar flagella	positive, polar flagella	positive
Oxidase	positive	positive	positive	positive
Catalase	positive	positive	positive	
Pyoverdin	positive	positive	positive	negative
Pyocyanin	positive (green pigment, metallic sheen)	negative	negative	negative
Gelatin	positive (most)	positive	negative	
Glucose	oxidation			
ADH	positive	positive	positive	
Cetrimide	positive			
Citrate	positive			
Acetamide	positive			
Nitrate reduction	positive			nitrate - nitrite - N2
Oxidize/Fermentate	usually oxidize	usually oxidize	usually oxidize	
Growth at 42C	positive	negative	negative	positive
Infections	nosocomial infections, respiratory tract inf, bacteremias w/ ecthyma gangrenosum, wound inf after burns, pulmonary disease w/cystic fibrosis, UTI, endocarditis, otitis externa (swimmers), necrotizing skin rash (hot tub syndrome), rare CNS involvement w/meningitis	UTI, postsurgical abcesses, empyema, septic arthritis, wounds	UTI, postsurgical abcesses, empyema, septic arthritis, wounds	
Virulence	endotoxin (LPS), motility, pili, capsule, exotoxins: proteases, hemolysins, lecithiniase, elastase, DNase (A blocks protein synthesis), "slime" polysaccharide polymer alginate, resistant to antimicrobial agents	grow at 4C - linked to transfusion related septicemia	grow at 4C - linked to transfusion related septicemia	
Media	Sellers, FN, usually grow on MAC	usually grow on MAC	usually grow on MAC	wrinkled, leathery adherent colonies; yellow-brown pigment

Drug resistance	PEN, AMP, many cephalosporins, SXT, chloramphenicol	carbenicillin	carbenicillin	

	Acinetobacter	Stenotrophomonas maltiphilia	Burkholderia cepacia	Burkholderia gladioli	
Gram Reaction	GNCB				**Burkholderia mallie** glanders, severe local suppurative or acture pulmonary infections, POTENTIAL AGENT OF BIOTERRORISM; zoonosis of horses, mulls and donkeys;
Oxidase	negative	negative	positive (slow,weak)	variable, usually negative	
Catalase	positive	positive		positive	
Motility	negative	positive	positive, polar tufts	positive, 1 or 2 polar tufts	
Fermentation	A. baumannii-sacch. (ox) A. lwoffii-assacharolytic	oxidative metabolism- glucose & maltose positive	oxidizes glucose, maltose, lactose & mannitol	oxidizes glucose & mannitol	
Urease				positive	
Dnase		positive			
Esculin		positive			
Gelatin		positive			
LDC		positive	positive		**Burkholderia pseudomallei**- causes meloidosis; aggressive granulomatas pulmonary disease; ingestion, inhalation or inoculation; metastatic abcesses in lungs & viscera; overwhelming septicemia; prolonged incubation period; pneumonia; localized inf; in water & muddy soils; slow response to therapy; relapses; AGENT OF BIOTERRORISM; nonfermentative, wrinkley colony, bipolar staining, oxidizes lactose, "earthy" odor, work in bio safety cabinet - aerosol transmission
ONPG			positive		
ODC			negative		
Nitrate reduction			negative	variable	
Temperature	better growth at 30-35C & pH 5.5-6.0		better growth at 30C		
Environment	ubiquitous- soil, water, milk, frozen soup, ventilators, humidifiers, catheters	ubiquitous- water, sewage, plants, hospital environment/equipment	plant pathogen - onion bulb	plant pathogen	
Infections	UTI, pnuemonia &/or tracheobronchitis, endocarditis, septicemia, meningitis, cellulitis-contaminated indwelling catheters, trauma, burns, eye inf.	nosocomial- pneumonia, endocarditis, wounds-cellulitis, ecthyma gangrenosum, bacteremia, rare meningitis, UTI; presence of venous catheter (risk)	low grade nosocomial, pnuemonia with CF patients or chronic granulomatous disease, endocarditis (drug addicts), UTI, osteomyelitis, dermatitis, wounds	human infections in patients with CF & CGD	
Drug resistance	often resistant to most antimicrobials		aminoglycosides, polymixin B	polymixin B; more susceptible to antibiotics than B. cepacia	