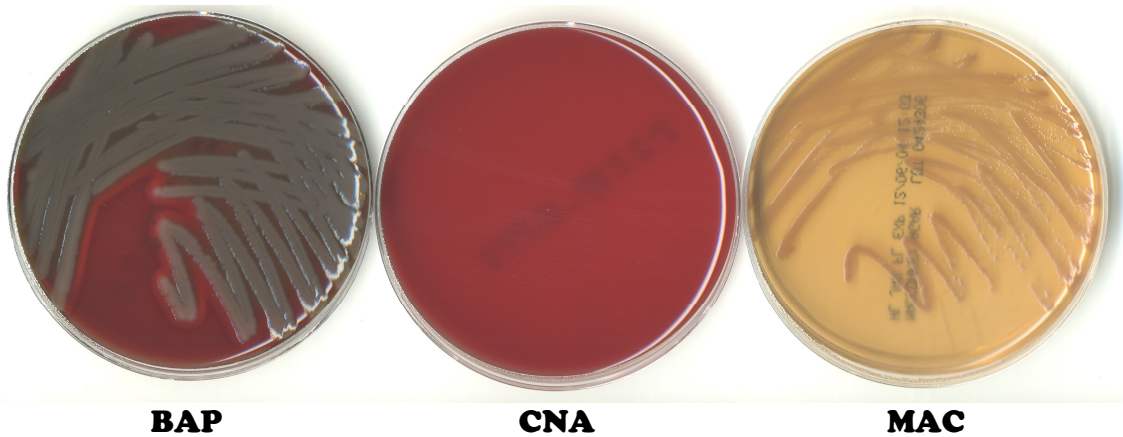


QUICK REFERENCE

Pseudomonas aeruginosa

(*Pseudomonas* sp. *Xantomonas maltophilia*, *Acinetobacter* sp. & *Flavomonas* sp.)



Description: Greenish gray colonies with some beta-hemolysis around each colony on blood agar (BAP), clear pale colonies on maconkey agar (MAC) & no growth on Columbia agar (CNA).

Source of infection: Primary infection of ears, respiratory and often wounds. Various species can often contaminate un-treated water sources.

Routinely susceptible to: Amikacin, Baytril, Ciprofloxacin, Gentamicin, Polymixin B, Ceftazidime, Marbofloxacin, and often Ticarcillin.

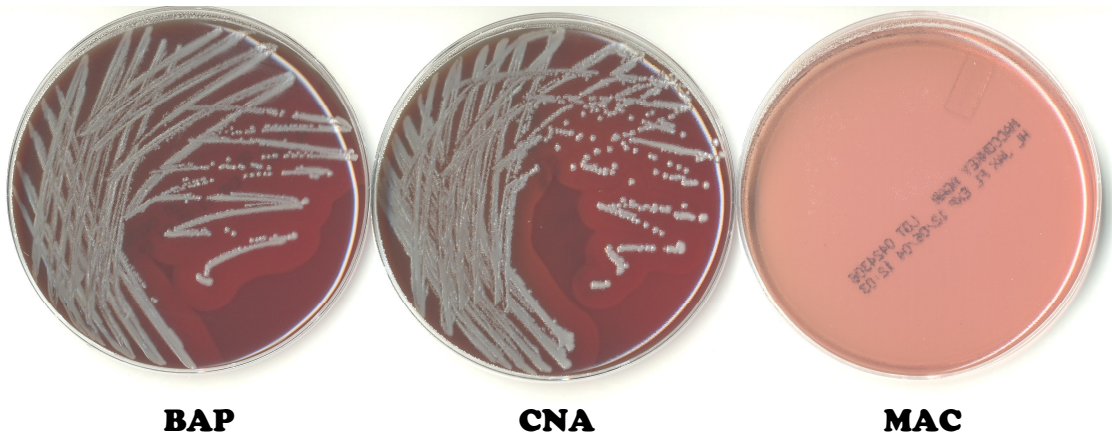
Routinely resistant to: Ampicillin, Cephalothin, Clavamox, Clindamycin, Chloramphenicol, Erythromycin, Penicillin, Tetracycline, Sulfa/Trimeth, Doxycycline and Nitrofurantoin,

NOTES: The drug of choice for *Xanthomonas* is Sulfa/Trimeth. Species other than *Pseudomonas aeruginosa* are often susceptible to Sulfa/Trimeth.

QUICK REFERENCE

Staphylococcus intermedius / aureus

(Staphylococcus sp. Micrococcus sp., Corynebacterium sp. & Bacillus sp.)



Description: White / light yellow to opaque grayish colonies & beta-hemolysis around each colony on blood agar (BAP), no growth on maconkey agar (MAC) & same as blood agar on Columbia agar (CNA).

Source of infection: Primary infection of skin and ears, but can infect all areas of the body. Staphylococcus sp. Micrococcus , Corynebacterium often make up the NORMAL skin flora. Bacillus sp. is a common soil contaminant.

Routinely susceptible to: Amikacin, Baytril, Cephalothin, Ciprofloxacin, Clavamox, Chloramphenicol, Polymixin B, Tetracycline, Sulfa/Trimeth, Neomycin, Nitrofuratoin, Clindamycin, Erythromycin Ceftazidime, Marbofloxacin, Doxycycline and Ticarcillin.

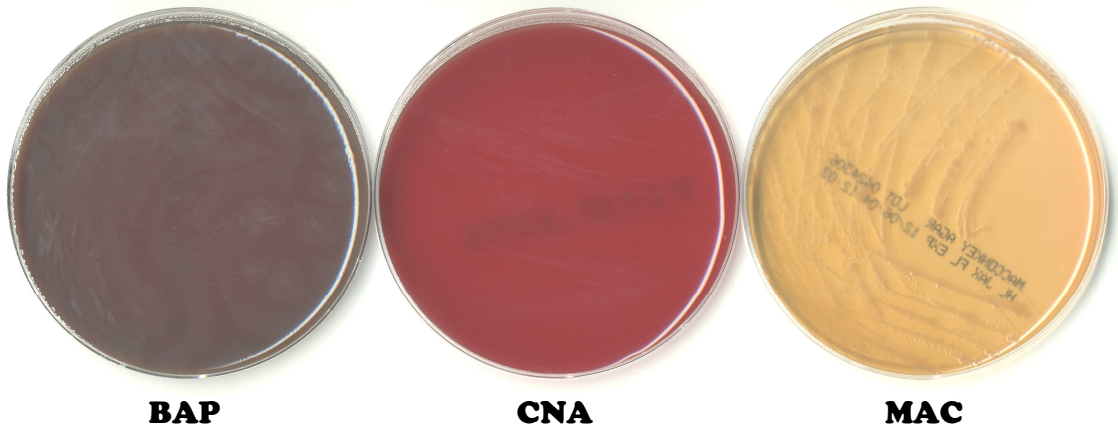
Routinely resistant to: Ampicillin and Penicillin (except: for Bacillus).

NOTES: Staph intermedius is routinely resistant to Tetracycline & Doxycycline and Staph aureus is routinely resistant to Polymyxin B. Oxacillin resistant strains are known as **MRSA** (Methacillin-resistant Staph aureus).

QUICK REFERENCE

Proteus mirabilis

(Proteus sp.)



Description: Opaque grayish colonies on blood agar (BAP) with a rapid spreading appearance, clear opaque colonies on maconkey agar (MAC) & no growth on Columbia agar (CNA).

Source of infection: Primary infection of urinary tract and ears, but can infect all areas of the body.

Routinely susceptible to: Ampicillin, Amikacin, Baytril, Cephalothin, Ciprofloxacin, Clavamox, Chloramphenicol, Sulfa/Trimeth, Neomycin, Ceftazidime, Marbofloxacin and Ticarcillin.

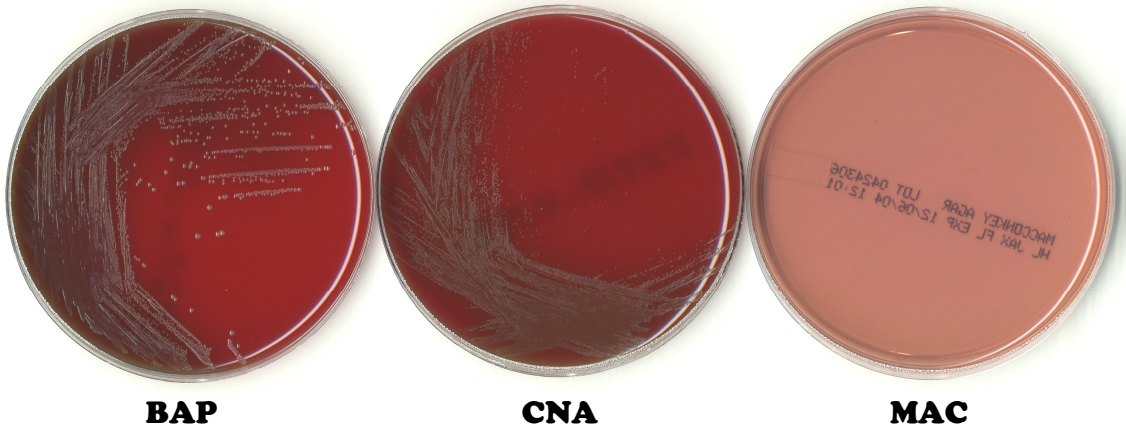
Routinely resistant to: Clindamycin and Erythromycin, Tetracycline, Doxycycline and Nitrofurantoin.

NOTES: Most often Proteus will swarm the blood agar plate (BAP), however, on some occasions it will produce a stunted or reduced swarming effect.

QUICK REFERENCE

Streptococcus faecalis

(Strep faecium, Group D enterococcus)



Description: Opaque to grayish colonies on blood agar (BAP), no growth on maconkey agar (MAC) & same as blood agar on Columbia agar (CNA).

Source of infection: Primary infection of urinary tract, skin and ears, but can infect all areas of the body.

Routinely susceptible to: Ampicillin, Penicillin, Baytril, Ciprofloxacin, Clavamox, Chloramphenicol, Nitrofuratoin, Clindamycin, Erythromycin Ceftazidime, Marbofloxacin, and Ticarcillin.

Routinely resistant to: Amikacin, Neomycin, Cephalothin, Tetracycline, Doxycycline and sometimes Polymixin B & sometimes Sulfa/Trimeth.

NOTES: This organism can also be resistant to Vancomycin and is known as **VRE** (Vancomycin-resistant enterococcus).

QUICK REFERENCE

Enterobacter cloacae

(Enterobacter sp., Klebsiella sp., Citrobacter sp.)



BAP

CNA

MAC

Description: Opaque grayish / white colonies on blood agar (BAP), pink / light pink mucoid colonies on maconkey agar (MAC) & no growth on Columbia agar (CNA).

Source of infection: Primary infection of urinary tract and ears, but can infect all areas of the body. Normally found in feces.

Routinely susceptible to: Amikacin, Baytril, Ciprofloxacin, Tetracycline, Doxycycline, Chloramphenicol, Sulfa/Trimeth, Neomycin, Ceftazidime, Marbofloxacin, Nitrofurantoin and Ticarcillin.

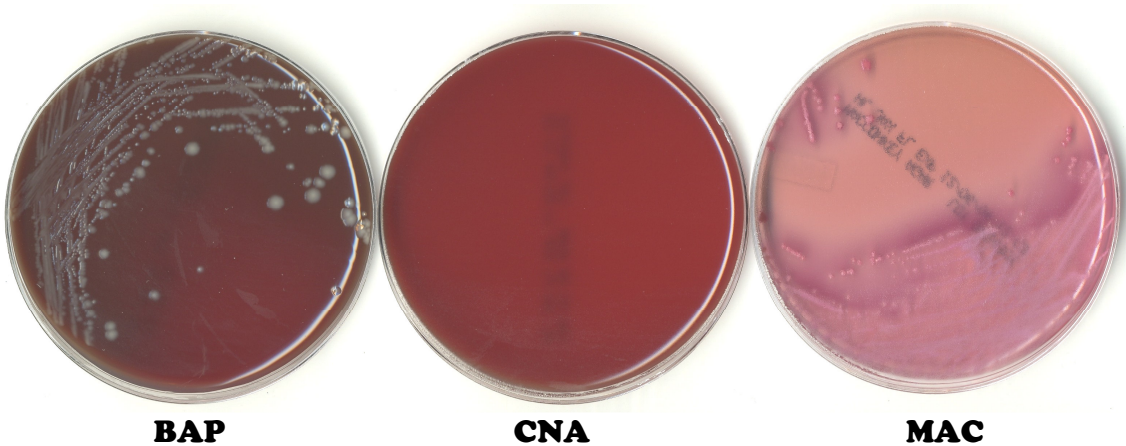
Routinely resistant to: Ampicillin, Penicillin, Clavamox, Cephalothin Clindamycin and Erythromycin.

NOTES: Klebsiella sp. will often be susceptible to Cephalothin, which helps to separate it from Enterobacter sp. (Citrobacter sp. will not be mucoid)

QUICK REFERENCE

Escherichia coli

(Escherichia sp., Pasteurella sp. and Salmonella sp.)



Description: Opaque grayish colonies on blood agar (BAP), pink, flat dry colonies on maconkey agar (MAC) & no growth on Columbia agar (CNA). Pasteurella only grows on the blood agar plate.

Source of infection: Primary infection of urinary tract, but can infect all areas of the body. Normally found in feces.

Routinely susceptible to: Ampicillin, Amikacin, Baytril, Cephalothin, Ciprofloxacin, Clavamox, Chloramphenicol, Polymixin B, Tetracycline, Sulfa/Trimeth, Neomycin, Nitrofuratoin, Ceftazidime, Marbofloxacin, Doxycycline and Ticarcillin.

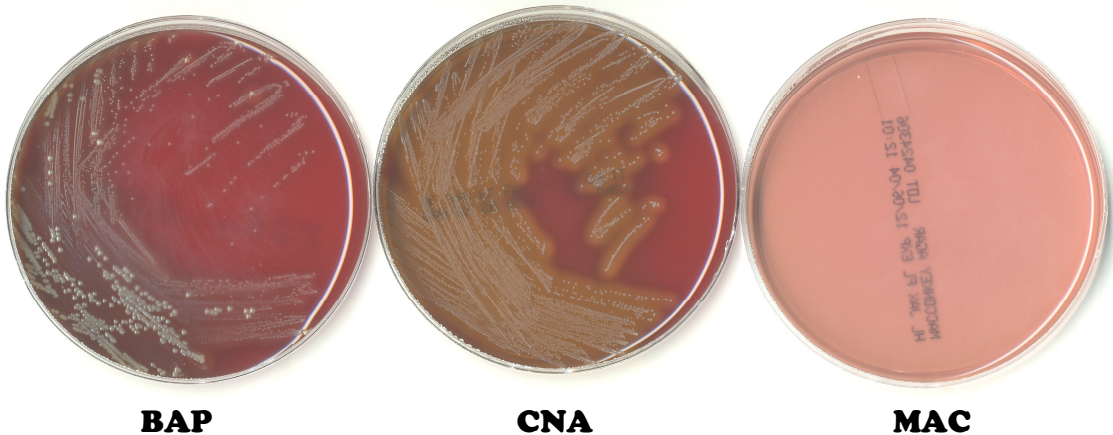
Routinely resistant to: Clindamycin and Erythromycin.

NOTES: There are always exceptions to the rule and E. coli can become very resistant.

QUICK REFERENCE

Beta-Hemolytic group A,B C, F, & G Streptococcus

(Streptococcus sp.& Viridans Strep)



Description: Opaque to grayish colonies on blood agar (BAP) with distinct clearing zones around the colonies (beta-hemolysis), no growth on maconkey agar (MAC) & same as blood agar on Columbia agar (CNA).

Source of infection: Primary infection of ears and skin, but can infect all areas of the body.

Routinely susceptible to: Ampicillin, Penicillin, Baytril, Ciprofloxacin, Clavamox, Chloramphenicol, Nitrofuratoin, Clindamycin, Erythromycin, Ceftazidime, Marbofloxacin, Cephalothin, Tetracycline, Doxycycline and Ticarcillin.

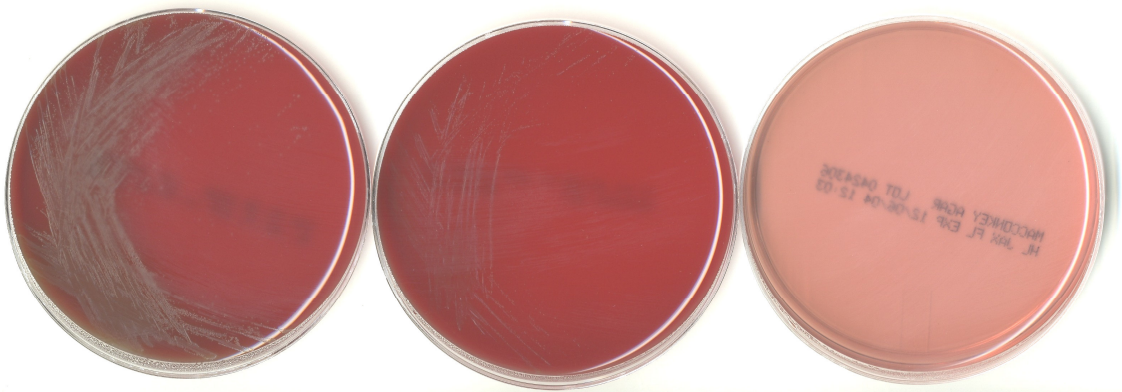
Routinely resistant to: Amikacin, Neomycin and sometimes Sulfa/Trimeth.

NOTE: BAP above has both Staphylococcus aureus & beta-Streptococcus to show the colony size difference.

QUICK REFERENCE

Additional Organisms:

Alpha-hemolytic Streptococcus



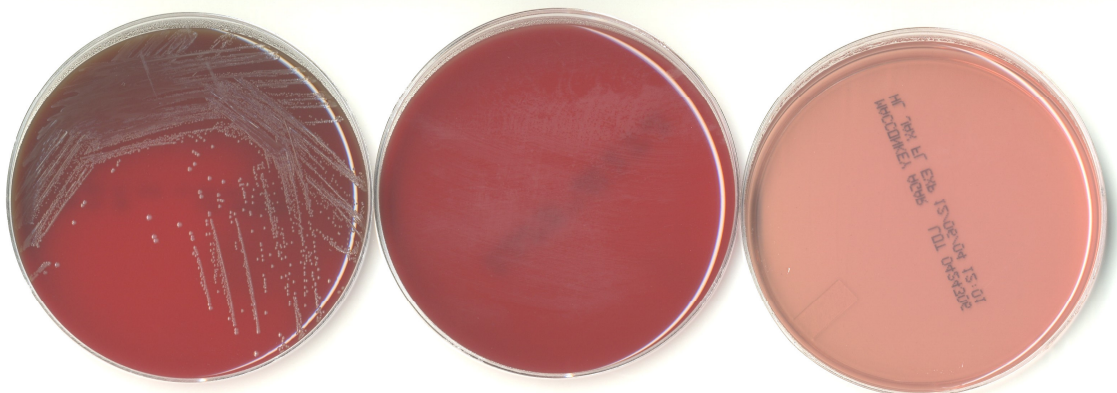
BAP

CNA

MAC

Small greenish-gray colonies.
(see beta Strep for susceptibility patterns)

Pasteurella multocida



BAP

CNA

MAC

This organism is a gram negative rod that only grows on blood agar plate, grayish-white colonies and does not grow on maconkey agar.
(see *E. coli* for susceptibility patterns)

QUICK REFERENCE

Anaerobic Bacteria

(Bacteroides, Clostridium, Peptostreptococcus)

Source of infection: These organisms routinely infect the areas of the body that have a reduced access to oxygen: body fluids, inner ear canal, blood stream and deep wounds. Often they have a very foul odor.

Routinely susceptible to:

Bacteroides: Metronidazole, Chloramphenicol, Ticarcillin/Clavulanate, Piperacillin, Clavamox, Imipenem and Clindamicin.

Clostridium: Penicillin G, Chloramphenicol, Piperacillin, Metronidazole, Imipenem and Ampicillin/sulbactam.

Peptostreptococcus: B-lactam- antibiotics, Ticarcillin, Cefotaxime, Clindamycin and Metronidazole.

NOTE: Most anaerobic bacteria can be treated with Metronidazole.