

## meningitis group :

- 1- Streptococcus agalactiae in neonates
- 2- Streptococcus pneumoniae
- 3- Viridans Streptococci ( mitis )
- 4- Inhalation anthrax
- 5- Listeria monocytogenes in neonates
- 6- Escherichia coli/ Extraintestinal Infections in neonates
- 7- Haemophilus influenzae
- 8- Neisseria meningitidis

## pneumonia group :

- 1- Streptococcus agalactiae in older people
- 2- Streptococcus pneumoniae
- 3- Viridans Streptococci ( mitis )
- 4- Klebsiella pneumoniae cause *lobar* pneumonia
- 5- Yersinia pestis cause pneumonic plague
- 6- Mycoplasma pneumoniae and can cause tracheobronchitis
- 7- Pseudomonas aeruginosa cause necrotizing bronchopneumonia and tracheobronchitis
- 8- Legionella pneumophila ( legionnaires disease severe form of pneumonia)
- 9- Haemophilus influenzae

## Capsule group :

- 1- Streptococcus pyogenes have hyaluronic acid capsule
- 2- Streptococcus pneumoniae have polysaccharide capsule
- 3- Bacillus anthracis from poly-d-glutamic acid
- 4- enterobacteriaceae have hydrophilic capsule repel the hydrophobic phagocytic
- 5- Bacteroides have polysaccharide capsule
- 6- Pseudomonas aeruginosa have alginate capsule
- 7- many but not all strains Haemophilus influenzae is covered with a polysaccharide capsule
- 8- Neisseria meningitidis have polysaccharide capsule

## endocarditis group :

- 1- staphylococcus ( most common)
- 2- Lactobacillus
- 3- Pseudomonas aeruginosa
- 4- Aggregatibacter

## UTIs group

- 1- Streptococcus
- 2 - Escherichia coli/ Extraintestinal Infections ( most common)
- 3- Klebsiella pneumoniae
- 4- Proteus mirabilis
- 5- Pseudomonas aeruginosa

## gastroenteritis group :

- 1- Salmonella
- 2- Campylobacter jejuni

## Gastritis group :

- 1- Helicobacter pylori

## Skin and Soft-Tissue Infections group :

- 1- Streptococcus agalactiae
- 2- Bacteroides fragilis
- 3- Pseudomonas aeruginosa

## Cellulitis group:

- 1- Streptococcus pyogenes
- 2- Clostridium perfringens
- 3- Haemophilus influenzae

## Intracellular infection group:

- 1- Listeria monocytogenes
- 2- Legionella
- 3- Rickettsiaceae ( Obligate)
- 4- Bartonella
- 5- Chlamydia

## Diplococci group :

- 1- Streptococcus pneumoniae
- 2- Enterococcus
- 3- Moraxella catarrhalis
- 4- Neisseria
- 5- Listeria monocytogenes ( very similar to Streptococcus pneumoniae in shape)
- 6- Pseudomonas

Enterotoxigenic E. coli (ETEC ) cause traveler's diarrhea and abdominal cramps

Escherichia coli/ Extraintestinal Infections cause 80% of UTI cases

Shiga toxin-producing E. coli (STEC ) cause hemorrhagic colitis and Hemolytic uremic syndrome (HUS)

Proteus mirabilis cause struvite and apatite crystals, results in the formation of renal (kidney) stones .

Vibrio cholera cause Rice water stools

M. genitalium can cause nongonococcal urethritis (NGU) and pelvic inflammatory disease

Pseudomonas aeruginosa cause External otitis ( swimmer's ear)

Legionella pneumophila can cause influenza-like illness (referred to as Pontiac fever )

Influenzae and Streptococcus pneumoniae are the two most common causes of acute and chronic otitis and sinusitis

Bartonella henselae cause cat-scratch disease