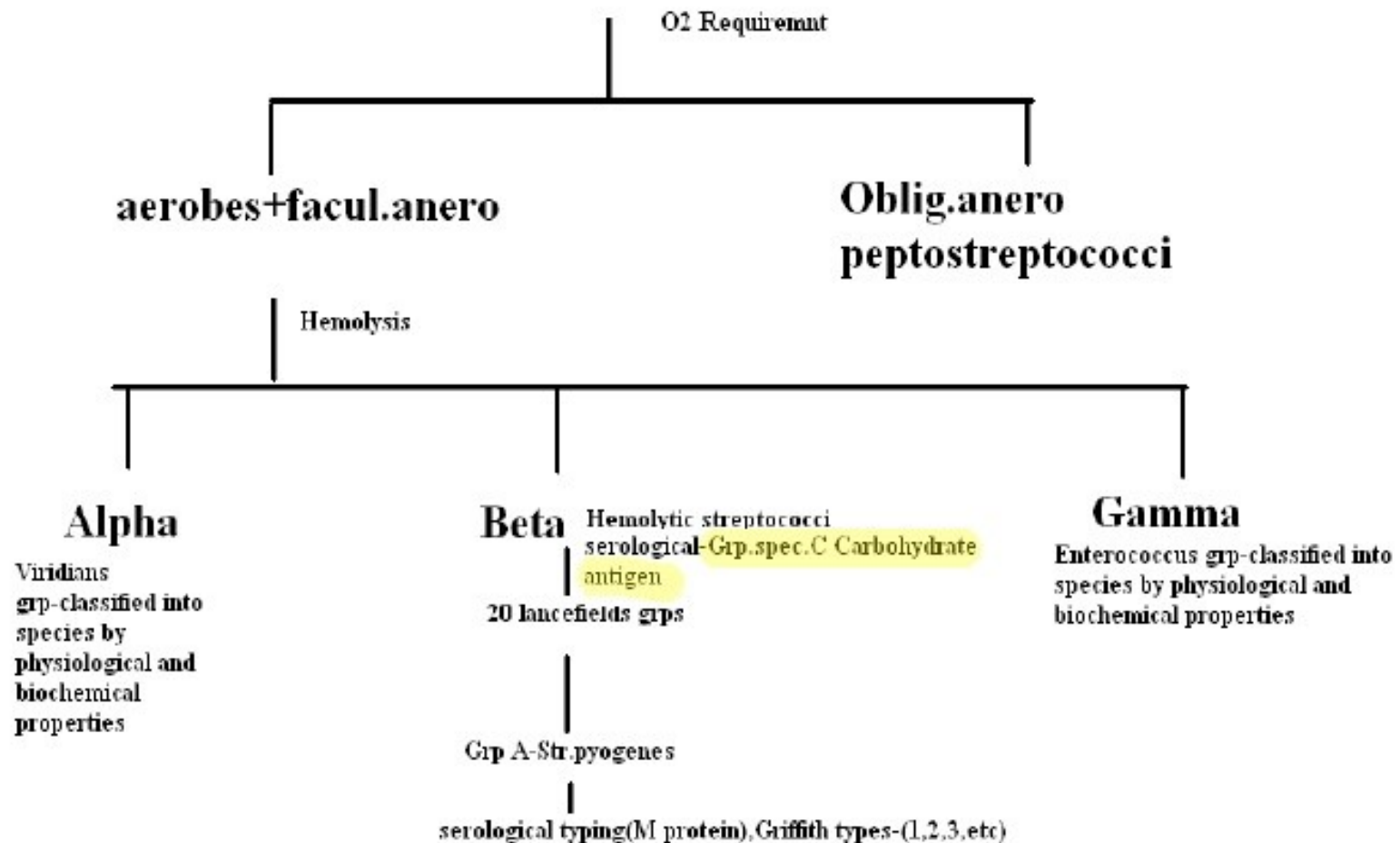


Streptococcus

■ Classification

STREPTOCOCCI



Streptococcus pyogenes

- Morphology – Gram positive cocci in chains(cell division in one plane), non motile , non sporing.
- Culture – Aerobes and facultative anaerobes , grows at 37 degree C.
- Blood agar – colonies are small , circular , semitransparent, low convex with wide zone of beta hemolysis

Toxins and enzymes

- Streptolysin – O, S
- Pyrogenic exotoxin
- Streptokinase
- Deoxyribonucleases (Streptodornase)
- NADase
- Hyaluronidase
- Serum opacity factor

Pathogenicity

- **Suppurative diseases:**
 1. Respiratory infections
 2. Skin and soft tissue infections
 3. Genital infections
- **Non suppurative sequelae:**
 1. Acute rheumatic fever
 2. Acute glomerulonephritis

Lab diagnosis & Treatment

- Specimen – Swab , pus , blood or CSF.
- Gram staining – chains , Culture on blood agar shows hemolysis.
- Biochemical reactions – Catalase negative, not soluble in 10%bile, Ferments sugars producing acid no gas, PYR test & failure to produce ribose.
- Bacitracin sensitivity test, CAMP test.
- Antigenic detection tests – ELISA, agglutination tests.=
- Treatment - Penicillin G – DOC , erythromycin and cephelexin.