

## \* Staphylococcus aureus



- impetigo, TSS, cellulitis, furuncles, folliculitis, Carbuncles, SSI, burns + wound infection, SSS, Osteomyelitis, septic arthritis, infective + infectious endocarditis.
- complete hemolysis
- $\beta$  hemolysis, on sheep agar plate, usually golden/yellow color
- gram (+) cocci arranged in clusters
- 1<sup>st</sup> test to differentiate from other gram (+)  $\rightarrow$  Catalase (+)
- to diff. from coagulase (-) staph
  - 1) (+) tube and slide coagulase test.
  - 2) Fermentation of mannitol in 10% mannitol salt agar.

## \* Streptococcus Pyogenes

- Scarlet fever, erysipelas, TSS, Cellulitis, Subcutaneous necrotizing infection.
- $\beta$ -hemolysis, gram (+) cocci arranged in clusters.
- 1<sup>st</sup> test to diff. from other gram (+) cocci  $\rightarrow$  (-) catalase.
- other test to diff. from  $\beta$ -hemolytic strept.
  - 1) Bacitracin sensitivity vs resistance for group B
  - 2) (+) lancefield group A using latex agglutination test



## \* Neisseria gonorrhoea



- gonococcal septic arthritis + gonococemia.
- to identify  $\rightarrow$  isolate oxidase (+), gram (-) diplococci grown on non-selective chocolate agar and selective thayer martin agar.
- incubated at 35°C - 37°C in moist tempt, enriched w/CO<sub>2</sub>.

## \* Pseudomonas aeruginosa

- Cellulitis, hot-tube folliculitis, Burn + wound, ecthyma gangrenosum, infectious endocard.
- grows well on most media + commonly isolated on  $\rightarrow$  Blood agar or macConkeys or CLED.
- gram (-) rod, cannot ferment glucose or lactose.
- (+) oxidase, fruity odor, creates green/blue/yellow pigments

## \* infectious mononucleosis monospot test

- IgM + sheep RBC's = Agglutination  
No longer rec. tdy.
- Sens. is 75% in first week, incs to 90% after.
- Both false (+) (cancer, early HIV, autoimmune) and false (-) (young age) are common
- Elisa for VCA antibody



## \* Secondary syphilis

- Screening  $\rightarrow$  non-treponemal serology (VDRL, RPR) test.
- Confirmatory  $\rightarrow$  treponemal test (FTA-ABS) and (MHA-TP)

## \* Cutaneous candidiasis

- grows readily in culture, result available in 24-48H
- producing white creamy colonies, wet prep reveal budding yeast
- 10% KOH used to examine specimens for yeast.

## \* Tinea (Dermatophytes)

- all specimens should be cultured on Sabouraud agar and supplemented w/ gentamicin + incubated for 2 wks before ruling Tinea out.
- lactophenol blue stain is a mounting medium + staining agent used in prep of slides for microscopic exam. of fungi.

## \* Candida

- identification required for all infection cause variable susp to antifungals.
- CHROMagar used  $\rightarrow$  uses colorimetric rxn on special agar, allows distinction between *C. Albicans*, *C. glabrata*, *C. krusei*, *C. tropicalis* and several non-albicans species!

\* KOH is an enzymatic agent  
 $\rightarrow$  breaks down debris in specimen, like epithelial cells and WBC to view yeast or pseudohyphae

Zan Underscore