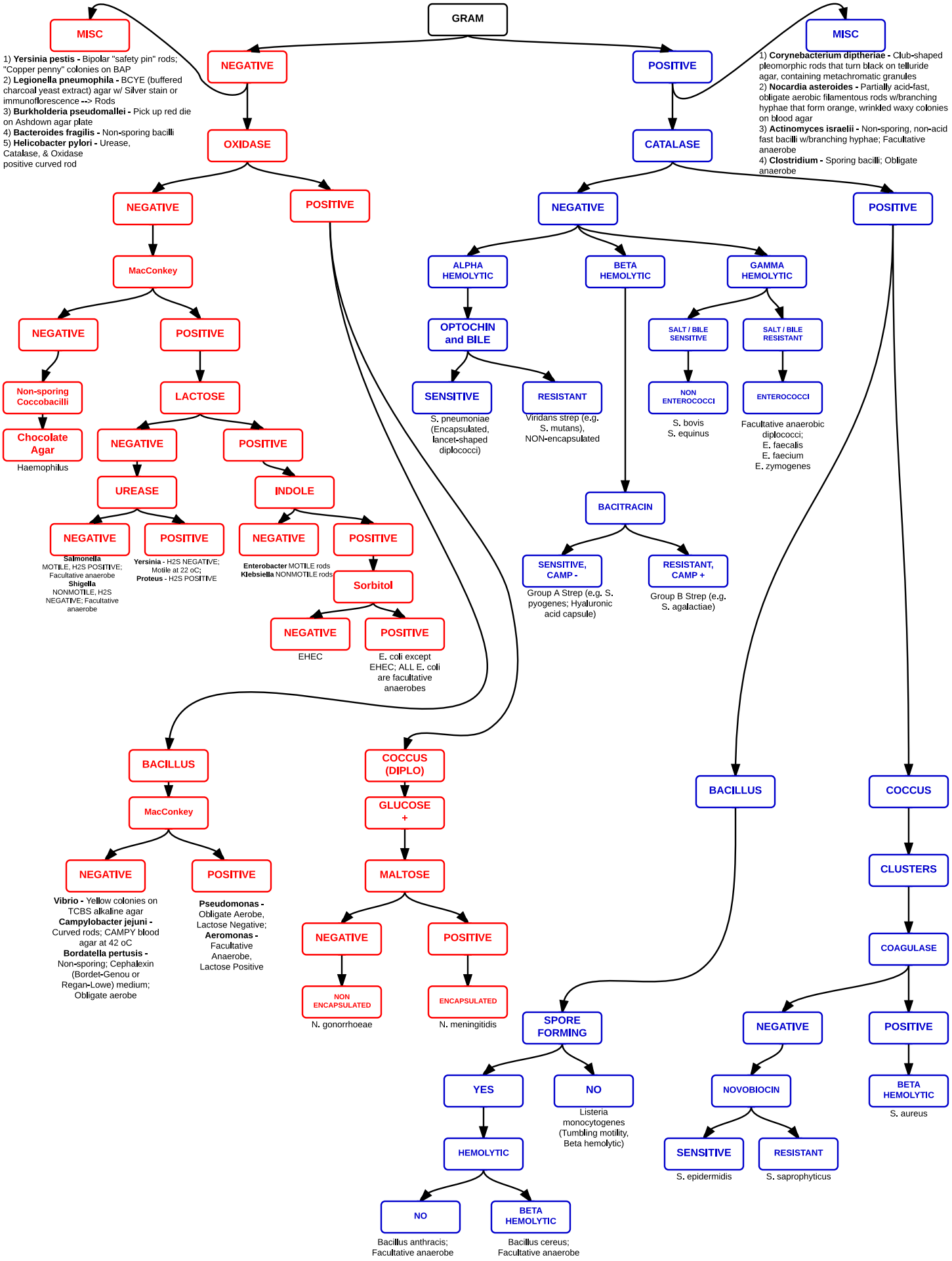
GRAM
MISC
1) Yersinia pestis - Bipolar "safety pin" rods; "Copper penny" colonies on BAP
2) Legionella pneumophila - BCYE (buffered charcoal yeast extract) agar w/ Silver stain or immunoflorescence --> Rods
3) Burkholderia pseudomallei - Pick up red die on Ashdown agar plate
4) Bacteroides fragilis - Non-sporing bacilli
5) Helicobacter pylori - Urease, Catalase, & Oxidase positive curved rod
NEGATIVE
POSITIVE
MISC
1) Corynebacterium diptheriae - Club-shaped pleomorphic rods that turn black on telluride agar, containing metachromatic granules
2) Nocardia asteroides - Partially acid-fast, obligate aerobic filamentous rods w/branching hyphae that form orange, wrinkled waxy colonies on blood agar
3) Actinomyces israelii - Non-sporing, non-acid fast bacilli w/branching hyphae; Facultative anaerobe
4) Clostridium - Sporing bacilli; Obligate anaerobe
OXIDASE
CATALASE
NEGATIVE
POSITIVE
NEGATIVE
POSITIVE
MacConkey
NEGATIVE
POSITIVE
Non-sporing Coccobacilli
Chocolate Agar
Haemophilus
LACTOSE
NEGATIVE
POSITIVE
UREASE
INDOLE
NEGATIVE
POSITIVE
NEGATIVE
POSITIVE
Salmonella MOTILE, H2S POSITIVE; Facultative anaerobe
Shigella NONMOTILE, H2S NEGATIVE; Facultative anaerobe
Yersinia - H2S NEGATIVE; Motile at 22 oC;
Proteus - H2S POSITIVE
Enterobacter MOTILE rods
Klebsiella NONMOTILE rods
Sorbitol
NEGATIVE
POSITIVE
EHEC
E. coli except EHEC; ALL E. coli are facultative anaerobes
ALPHA HEMOLYTIC
BETA HEMOLYTIC
GAMMA HEMOLYTIC
OPTOCHIN and BILE
SALT / BILE SENSITIVE
SALT / BILE RESISTANT
SENSITIVE
RESISTANT
NON ENTEROCOCCI
ENTEROCOCCI
S. pneumoniae (Encapsulated, lancet-shaped diplococci)
Viridans strep (e.g. S. mutans), NON-encapsulated
S. bovis
S. equinus
Facultative anaerobic diplococci;
E. faecalis
E. faecium
E. zymogenes
BACITRACIN
SENSITIVE, CAMP -
RESISTANT, CAMP +
Group A Strep (e.g. S. pyogenes; Hyaluronic acid capsule)
Group B Strep (e.g. S. agalactiae)
BACILLUS
COCCUS (DIPLO)
BACILLUS
COCCUS
MacConkey
GLUCOSE +
CLUSTERS
NEGATIVE
POSITIVE
MALTOSE
COAGULASE
Vibrio - Yellow colonies on TCBS alkaline agar
Campylobacter jejuni - Curved rods; CAMPY blood agar at 42 oC
Bordatella pertussis - Non-sporing; Cephalexin (Bordet-Genou or Regan-Lowe) medium; Obligate aerobe
Pseudomonas - Obligate Aerobe, Lactose Negative;
Aeromonas - Facultative Anaerobe, Lactose Positive
NEGATIVE
POSITIVE
NON ENCAPSULATED
ENCAPSULATED
N. gonorrhoeae
N. meningitidis
SPORE FORMING
NEGATIVE
POSITIVE
YES
NO
NOVOBIOCIN
BETA HEMOLYTIC
Listeria monocytogenes (Tumbling motility, Beta hemolytic)
S. aureus
HEMOLYTIC
SENSITIVE
RESISTANT
S. epidermidis
S. saprophyticus
NO
BETA HEMOLYTIC
Bacillus anthracis; Facultative anaerobe
Bacillus cereus; Facultative anaerobe