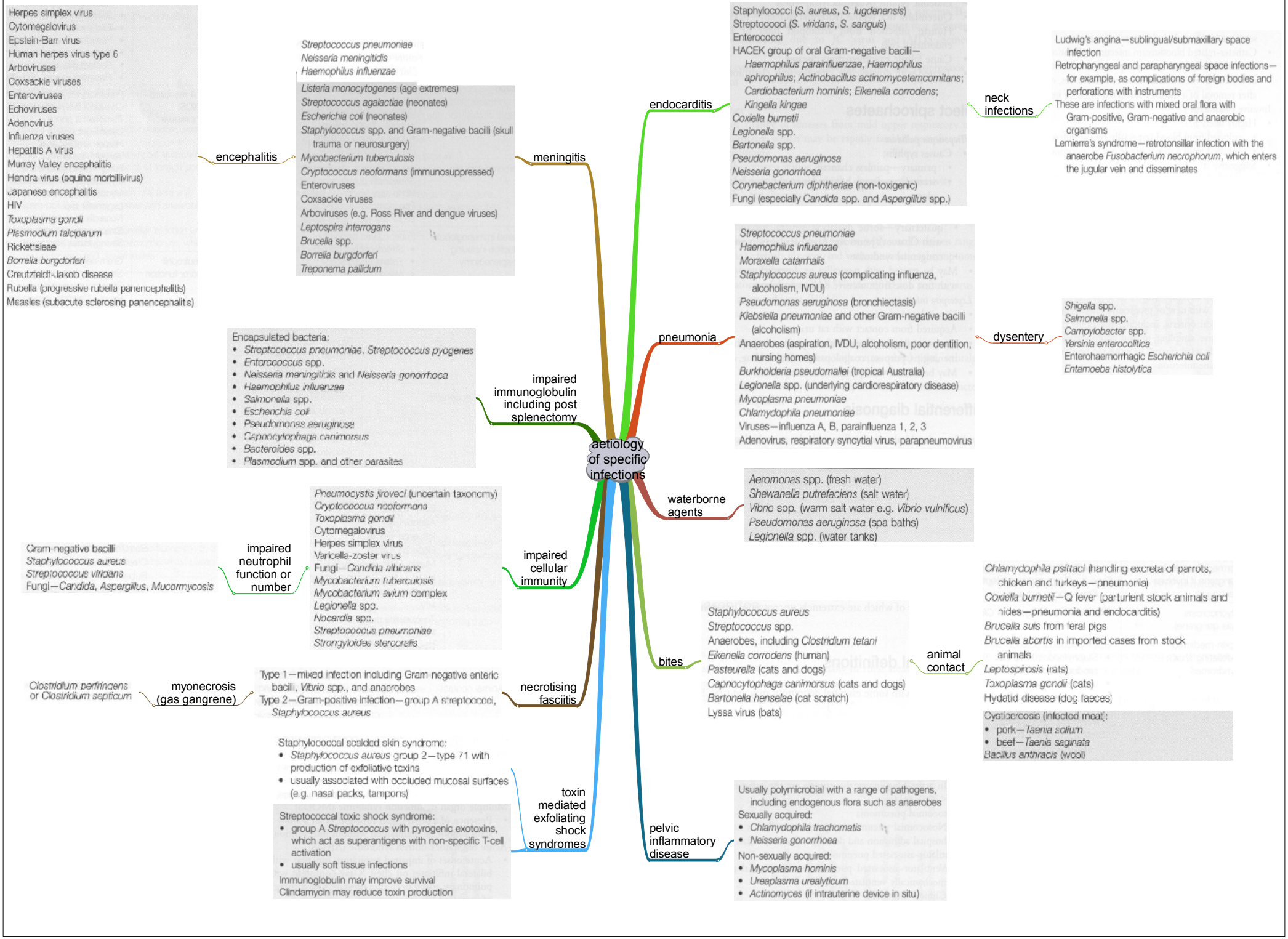
aetiology of specific infections
meningitis
encephalitis
Herpes simplex virus
Cytomegalovirus
Epstein-Barr virus
Human herpes virus type 6
Arboviruses
Coxsackie viruses
Enteroviruses
Echoviruses
Adenovirus
Influenza viruses
Hepatitis A virus
Murray Valley encephalitis
Hendra virus (equine morbillivirus)
Japanese encephalitis
HIV
Toxoplasma gondii
Plasmodium falciparum
Rickettsiae
Borrelia burgdorferi
Creutzfeldt-Jakob disease
Rubella (progressive rubella panencephalitis)
Measles (subacute sclerosing panencephalitis)
Streptococcus pneumoniae
Neisseria meningitidis
Haemophilus influenzae
Listeria monocytogenes (age extremes)
Streptococcus agalactiae (neonates)
Escherichia coli (neonates)
Staphylococcus spp. and Gram-negative bacilli (skull trauma or neurosurgery)
Mycobacterium tuberculosis
Cryptococcus neoformans (immunosuppressed)
Enteroviruses
Coxsackie viruses
Arboviruses (e.g. Ross River and dengue viruses)
Leptospira interrogans
Brucella spp.
Borrelia burgdorferi
Treponema pallidum
endocarditis
Staphylococci (S. aureus, S. lugdenensis)
Streptococci (S. viridans, S. sanguis)
Enterococci
HACEK group of oral Gram-negative bacilli—Haemophilus parainfluenzae, Haemophilus aphrophilus; Actinobacillus actinomycetemcomitans; Cardiobacterium hominis; Eikenella corrodens; Kingella kingae
Coxiella burnetii
Legionella spp.
Bartonella spp.
Pseudomonas aeruginosa
Neisseria gonorrhoea
Corynebacterium diphtheriae (non-toxigenic)
Fungi (especially Candida spp. and Aspergillus spp.)
neck infections
Ludwig's angina—sublingual/submaxillary space infection
Retropharyngeal and parapharyngeal space infections—for example, as complications of foreign bodies and perforations with instruments
These are infections with mixed oral flora with Gram-positive, Gram-negative and anaerobic organisms
Lemierre's syndrome—retrotonsillar infection with the anaerobe Fusobacterium necrophorum, which enters the jugular vein and disseminates
pneumonia
Streptococcus pneumoniae
Haemophilus influenzae
Moraxella catarrhalis
Staphylococcus aureus (complicating influenza, alcoholism, IVDU)
Pseudomonas aeruginosa (bronchiectasis)
Klebsiella pneumoniae and other Gram-negative bacilli (alcoholism)
Anaerobes (aspiration, IVDU, alcoholism, poor dentition, nursing homes)
Burkholderia pseudomallei (tropical Australia)
Legionella spp. (underlying cardiorespiratory disease)
Mycoplasma pneumoniae
Chlamydophila pneumoniae
Viruses—influenza A, B, parainfluenza 1, 2, 3
Adenovirus, respiratory syncytial virus, parapneumovirus
dysentery
Shigella spp.
Salmonella spp.
Campylobacter spp.
Yersinia enterocolitica
Enterohaemorrhagic Escherichia coli
Entamoeba histolytica
waterborne agents
Aeromonas spp. (fresh water)
Shewanella putrefaciens (salt water)
Vibrio spp. (warm salt water e.g. Vibrio vulnificus)
Pseudomonas aeruginosa (spa baths)
Legionella spp. (water tanks)
bites
Staphylococcus aureus
Streptococcus spp.
Anaerobes, including Clostridium tetani
Eikenella corrodens (human)
Pasteurella (cats and dogs)
Capnocytophaga canimorsus (cats and dogs)
Bartonella henselae (cat scratch)
Lyssa virus (bats)
animal contact
Chlamydophila psittaci (handling excreta of parrots, chicken and turkeys—pneumonia)
Coxiella burnetii—Q fever (parturient stock animals and hides—pneumonia and endocarditis)
Brucella suis from feral pigs
Brucella abortis in imported cases from stock animals
Leptospirosis (rats)
Toxoplasma gondii (cats)
Hydatid disease (dog faeces)
Cysticercosis (infected meat):
pork—Taenia solium
beef—Taenia saginata
Bacillus anthracis (wool)
pelvic inflammatory disease
Usually polymicrobial with a range of pathogens, including endogenous flora such as anaerobes
Sexually acquired:
Chlamydophila trachomatis
Neisseria gonorrhoea
Non-sexually acquired:
Mycoplasma hominis
Ureaplasma urealyticum
Actinomyces (if intrauterine device in situ)
toxin mediated exfoliating shock syndromes
Staphylococcal scalded skin syndrome:
Staphylococcus aureus group 2—type 71 with production of exfoliative toxins
usually associated with occluded mucosal surfaces (e.g. nasal packs, tampons)
Streptococcal toxic shock syndrome:
group A Streptococcus with pyrogenic exotoxins, which act as superantigens with non-specific T-cell activation
usually soft tissue infections
Immunoglobulin may improve survival
Clindamycin may reduce toxin production
necrotising fasciitis
myonecrosis (gas gangrene)
Clostridium perfringens or Clostridium septicum
Type 1—mixed infection including Gram-negative enteric bacilli, Vibrio spp., and anaerobes
Type 2—Gram-positive infection—group A streptococci, Staphylococcus aureus
impaired cellular immunity
Pneumocystis jiroveci (uncertain taxonomy)
Cryptococcus neoformans
Toxoplasma gondii
Cytomegalovirus
Herpes simplex virus
Varicella-zoster virus
Fungi—Candida albicans
Mycobacterium tuberculosis
Mycobacterium avium complex
Legionella spp.
Nocardia spp.
Streptococcus pneumoniae
Strongyloides stercoralis
impaired neutrophil function or number
Gram-negative bacilli
Staphylococcus aureus
Streptococcus viridans
Fungi—Candida, Aspergillus, Mucormycosis
impaired immunoglobulin including post splenectomy
Encapsulated bacteria:
Streptococcus pneumoniae, Streptococcus pyogenes
Enterococcus spp.
Neisseria meningitidis and Neisseria gonorrhoea
Haemophilus influenzae
Salmonella spp.
Escherichia coli
Pseudomonas aeruginosa
Capnocytophaga canimorsus
Bacteroides spp.
Plasmodium spp. and other parasites