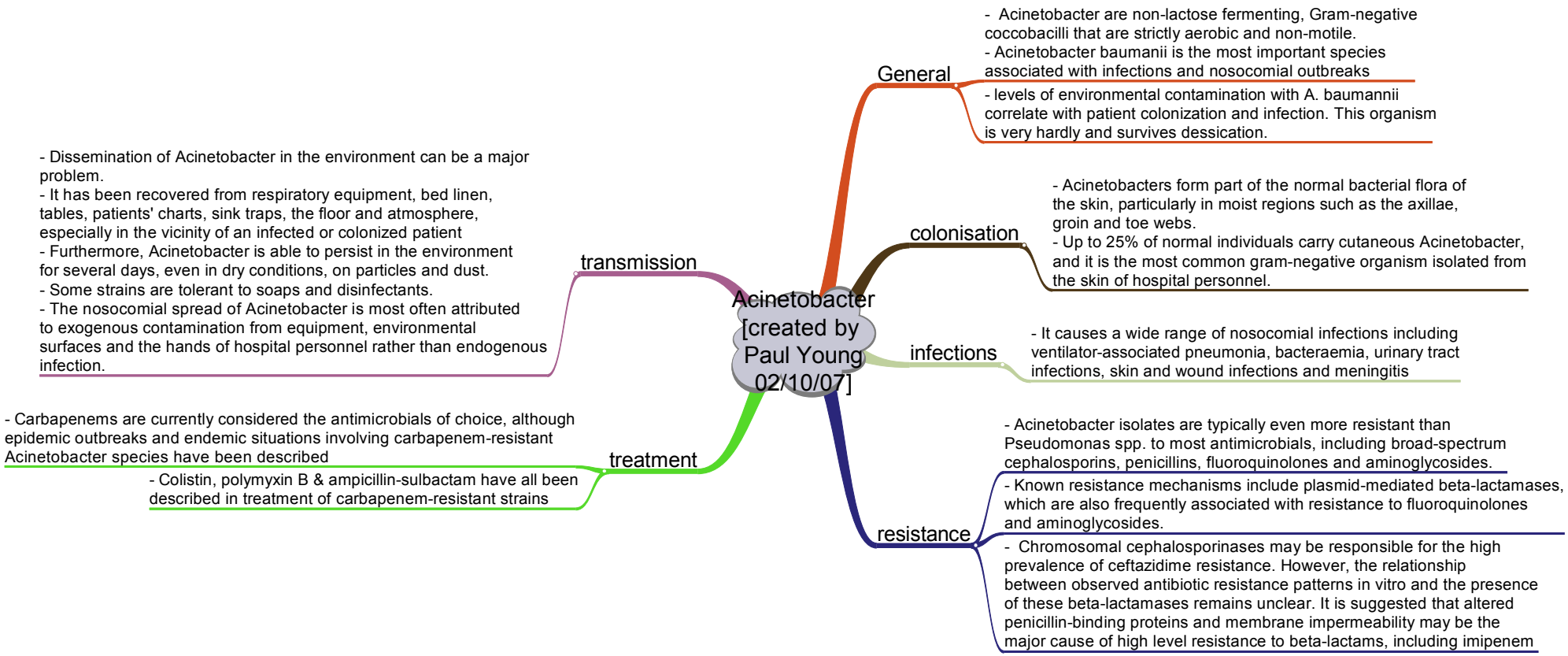
Acinetobacter [created by Paul Young 02/10/07]
General
- Acinetobacter are non-lactose fermenting, Gram-negative coccobacilli that are strictly aerobic and non-motile.
- Acinetobacter baumanii is the most important species associated with infections and nosocomial outbreaks
- levels of environmental contamination with A. baumannii correlate with patient colonization and infection. This organism is very hardly and survives dessication.
colonisation
- Acinetobacters form part of the normal bacterial flora of the skin, particularly in moist regions such as the axillae, groin and toe webs.
- Up to 25% of normal individuals carry cutaneous Acinetobacter, and it is the most common gram-negative organism isolated from the skin of hospital personnel.
infections
- It causes a wide range of nosocomial infections including ventilator-associated pneumonia, bacteraemia, urinary tract infections, skin and wound infections and meningitis
resistance
- Acinetobacter isolates are typically even more resistant than Pseudomonas spp. to most antimicrobials, including broad-spectrum cephalosporins, penicillins, fluoroquinolones and aminoglycosides.
- Known resistance mechanisms include plasmid-mediated beta-lactamases, which are also frequently associated with resistance to fluoroquinolones and aminoglycosides.
- Chromosomal cephalosporinases may be responsible for the high prevalence of ceftazidime resistance. However, the relationship between observed antibiotic resistance patterns in vitro and the presence of these beta-lactamases remains unclear. It is suggested that altered penicillin-binding proteins and membrane impermeability may be the major cause of high level resistance to beta-lactams, including imipenem
transmission
- Dissemination of Acinetobacter in the environment can be a major problem.
- It has been recovered from respiratory equipment, bed linen, tables, patients' charts, sink traps, the floor and atmosphere, especially in the vicinity of an infected or colonized patient
- Furthermore, Acinetobacter is able to persist in the environment for several days, even in dry conditions, on particles and dust.
- Some strains are tolerant to soaps and disinfectants.
- The nosocomial spread of Acinetobacter is most often attributed to exogenous contamination from equipment, environmental surfaces and the hands of hospital personnel rather than endogenous infection.
treatment
- Carbapenems are currently considered the antimicrobials of choice, although epidemic outbreaks and endemic situations involving carbapenem-resistant Acinetobacter species have been described
- Colistin, polymyxin B & ampicillin-sulbactam have all been described in treatment of carbapenem-resistant strains