



## Microbiology

**Gram.** Small coccoid, oval or rod-shaped Gram-negative bacteria. Bipolar staining and capsules may be present.

**Culture.** Grow on ordinary laboratory media at 37°C. **Catalase and oxidase-positive.**

Non-motile and facultatively anaerobic.

*Pasteurella* species are usually grey and viscous, with a strong mucinous odour (smells like *H influenzae*).

May be overlooked on mixed wound swab flora unless details state 'bite wound'

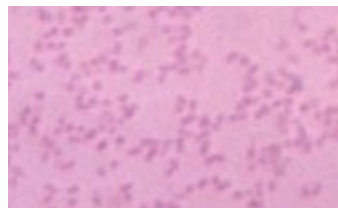


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Dr. R. Weaver 1971



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**Epidemiology.** *P. multocida* is normally found in the upper respiratory tract of healthy animals including chickens, cattle, swine, cats, dogs & rodents.

**Virulence.** *Pasteurella* produces several virulence factors, including lipopolysaccharide and endotoxin

**Susceptibility.** *Pasteurella* species are typically **penicillin-susceptible**, and also susceptible to doxycycline, quinolones, co-trimoxazole and 2<sup>nd</sup>/3<sup>rd</sup> generation cephalosporins. **Resistant to erythromycin or clindamycin.**

**Presentation.** Most infections follow a domestic animal bite. Usually present with wound infection NB there may be no pus.

Can also present as septicaemia, otitis, arthritis, osteomyelitis.

**First choice antibiotic** for infected bite wounds is co-amoxiclav.

If monomicrobial infection with *Pasteurella*, can narrow to penicillin.

Resources:

PHE SMI 13 identification of Pasteurella species

## Management of an animal bite injury:

**Treatment.** Wash, debride, give prophylactic antibiotics if: cat bite; delayed presentation (>8h), asplenic / immunosuppressed/ chronic liver disease; hands / feet / face or genitals; deep contaminated or puncture or crush wounds; penetrating injury to bones /joints/tendons/vessels. Consider tetanus +/- rabies risk. If monkey - ?herpes B

**First choice antibiotic prophylaxis** for bite wounds is co-amoxiclav. 2<sup>nd</sup> line is doxy/metronidazole. Alternative if pregnant and allergic = cipro/clinda combination.

**Vaccination.** Rabbits can be vaccinated vs *Pasteurella* - with BunnyVac (this is not available for humans).

