PSITTACOSIS: Notes about the Disease

Psittacosis ("parrot fever") is a zoonotic infection named for the psittacine birds (parrots, parakeets, macaws, cockatiels, etc.) that harbor the causative bacterium *Chlamydophila psittaci*, formerly known as *Chlamydia psittaci.* Because a number of non-psittacine birds—particularly turkeys, pigeons, and ducks—can also become infected and transmit the disease to man and a few other non-avian species, the term "ornithosis" was coined to designate *C. psittaci* infections of non-psittacines. The baseline prevalence of carriage in bird populations studied is 5-8%, but this may increase to 100 % when birds are stressed, such as during shipping, quarantine, crowding, or breeding. Strains of *C. psittaci* associated with turkeys and psittacine birds are the most virulent for humans.

Although the number of reported cases in North Carolina and other states would lead one to believe that this is a rare disease, psittacosis is undoubtedly much more common than the statistics show. The diagnosis is often missed because it frequently presents as a mild-moderately severe respiratory tract infection and responds to commonly used antibiotics. Notwithstanding, it is recognized as an occupational hazard of pet shop operators, veterinarians, and poultry plant workers, and occasional outbreaks do occur. Such was the case in 1989 when a number of workers at a turkey processing plant in eastern North Carolina became ill with febrile respiratory and gastrointestinal symptoms. Eventually, 40 confirmed and an additional 20 suspected ornithosis cases were identified; 24 persons required hospitalization.[1]

Inhaling dried secretions or aerosols from infected birds transmits the disease. Lest one think that close proximity is required, investigation of one outbreak linked to wild birds in a forested district of New South Wales, Australia, showed that even mowing a lawn without a grass catcher was a significant risk factor for infection.[2] Certainly, having a sick pet bird in one's home would be the "classical" risk factor, but not all infected birds are symptomatic.

Public health workers need to recognize that NC produces over 50 million turkeys each year (more than any other state) and that psittacosis/ornithosis will remain at least a potential occupational risk here for the foreseeable future in addition to the more commonly recognized association between human disease and pet bird ownership.

1. Centers for Disease Control and Infection. [Epidemiologic Notes and Reports: Psittacosis at a Turkey Processing Plant—North Carolina, 1989]. *MMWR* 1990; 39:[460-1, 467-9], www.cdc.gov/mmwr/preview/mmwrhtml/00001662.htm.

2. BL Telfer et al., "Probable Psittacosis Outbreak Linked to Wild Birds," *Emerg Infect Dis* 11 (2005): 391-7, www.cdc.gov/ncidod/EID/vol11no03/pdfs/04-0601.pdf.

3. *National Association of Public Health Veterinarians Compendium on Psittacosis,* 2006 www.nasphv.org/Documents/Psittacosis.pdf.