

Veterinary Viewpoints

compiled and edited by
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Question #1: There are numerous antibiotics for the treatment of bacteria; why aren't there any drugs available for viral infections?

C. Tuttle, New York

Answer #1: As in human medicine, to this date, there are very few drugs effective against viruses. Bacterial organisms are sensitive to specific spectrums of antibiotic therapy. Viruses are completely unaffected by antibiotics. There are a few antiviral drugs that have very limited use against a few types of viruses. Most of the antiviral drugs are effective or partially effective against the herpes virus.

*Robert B. Altman, DVM
Franklin Square, New York*

Answer #2: Until recently, development of antiviral drugs has been

slow. Many of the viral diseases which afflict western society were controlled with vaccines. Only recently has western medicine encountered enigmatic diseases such as AIDS and Herpes which have, to date, defied viable vaccine development. With the advent of these two diseases, much research is now being conducted in the area of antiviral drug therapy.

One difficulty encountered in developing anti-viral drugs is that the virus commandeers the host cellular machinery in order to reproduce. Hence, it is difficult to attack viral functions without harming the host cells. Also, most viruses are very host-specific, suggesting that a drug that worked for a particular virus in one host, may not work in another. Another difficulty is that there are many different types of viruses, each with different modes and routes of reproduction. So a drug that may be effective against one virus would be useless for another virus. Therefore, one must know exactly what type of virus one is dealing with before selecting the appropriate drug.

The drug acyclovir, for example, has been shown to reduce mortality in outbreaks of Pacheco's disease, a frequently fatal herpesvirus infection found in psittacine birds. There are other antiviral drugs currently under development, but are not yet available for the commercial sector.

*Darrel K. Styles, DVM
College Station, Texas*

Answer #3: Antibiotics, agents derived from soil bacteria, molds and synthetically created products aid the body in fighting bacterial infections by either weakening the bacteria (bacteriostatic) or killing them (bac-

tericidal). They accomplish this by interfering with the bacteria's metabolism, destroying the membrane that covers the bacteria, or preventing the bacteria from multiplying. Viruses are incomplete organisms needing portions of the host animal's cells to survive and reproduce. Antibiotics are therefore not active against viruses. There is a drug currently effective against a virus. The drug acyclovir is active against Herpes viruses. Cold sores, canker sores, venereal herpes in humans and Pacheco's disease in psittacines are examples of herpes virus infections. Pharmaceutical companies are actively working on developing other compounds with antiviral activity. The current HIV (AIDS) epidemic will unquestionably result in an expanded effort at developing antiviral agents and I would predict that more of them will be available in the future.

*James M. Harris, DVM
Oakland, CA*

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Question #2: We have two small children and they love our Red Lored Amazon but I am worried about germs or bacteria from the bird that might affect the children. Do I have anything to worry about or am I just being over protective?

L. Rozelle, Massachusetts

Answer #1: There are relatively few concerns about transmission of bacteria or viruses from birds to family members, particularly children. The greatest potential for this occurrence is at the time that the bird is first purchased, since there is no way to know what potential exposure the bird has had to these organisms. It is, therefore, important to have the bird examined by a veterinarian and checked for potential transmissible problems as soon as it is purchased. There are really only two organisms that are of prime concern and which have any major consequences when transmitted to humans. Salmonellosis and chlamydia (psittacosis, parrot fever) can both be detected on a complete physical examination. Once the bird has been examined and deemed free of these diseases, the only way that the birds can then contract them would be through exposure to either other birds or people infected with these diseases.



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Since this is unlikely when the bird is being kept as a household pet, chances of a transmission of bacteria or viruses are very remote. If a bird is being boarded at any facility in which there are any other birds, it is essential that the bird owner be aware how these birds are kept to be sure that diseases cannot be transmitted during exposure at the boarding facility.

Robert B. Altman, DVM
Franklin Square, New York

Answer #2: There are diseases that can be transferred from birds to humans. These are called zoonoses. Your Red Lored Amazon would have to be carrying one of these diseases though in the first place. Birds can harbor Psittacosis (parrot fever), and not show symptoms of illness but the organism that is responsible for the disease can be passed in their droppings or nasal discharge. Birds can be tested for psittacosis and a consultation with your avian veterinarian would be appropriate.

You should also discuss Salmonella and tuberculosis with the veterinarian. Salmonella is most common in newly imported birds and tuberculosis more frequently seen in older Amazons. There are tests for both these infections. Simple, proper sanitation goes a long way to reduce the chances of the spread of any infectious disease. Changing cage papers daily to remove droppings and washing cages and food and water containers maintains a clean environment.

Remember that the bacteria in your children's mouths can produce infections in the bird. Do not let them kiss the bird on the beak or feed the bird food that they have chewed or bitten off.

James M. Harris, DVM
Oakland, CA


Answer #3: Pet and aviary birds may be implicated in zoonotic diseases, or those which can be transmitted between animals and man. The most common of these is infection due to the organism *Chlamydia psittaci*, which produces the disease in man and psittacine birds known as psittacosis or chlamydiosis. Psittacosis is a bacteria-caused infection which can be carried in birds for many years. As it can produce a variety of signs in the affected bird such that the reproductive, respiratory, or gastrointestinal system may be affected, a variety of diagnostic tests are necessary to detect

its presence in the bird, and even then, it may go undetected as the organism is intermittently shed or released from the bird.

The disease in people is similar to the flu, except that the infection does not resolve. Typical clinical signs include high fever, aches and pains, and pneumonia. Once diagnosed in an infected individual, appropriate antibiotic therapy can resolve the infection. Other zoonotic diseases to be aware of include salmonellosis, tuberculosis and Newcastle disease. Other diseases

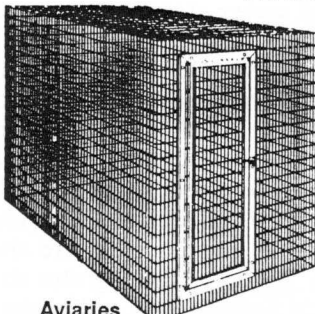
which may be communicable to people include giardiasis, candidiasis, infection due to the bacteria Yersinia, and campylobacteriosis. Discussion with your avian veterinarian can lead to diagnostic procedures which may help to identify the presence of any of these conditions. Inclusion of good sanitary measures in the daily care of your pet will also reduce the incidence and subsequent potential for infection with these agents.

Amy B. Worell, DVM
Woodland Hills, CA



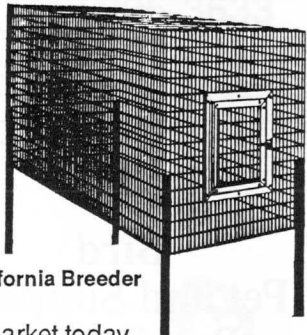
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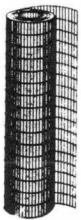
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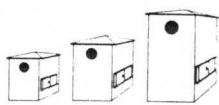
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
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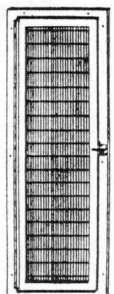
Wire latch



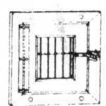
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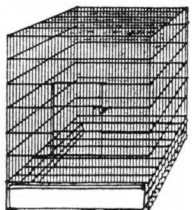
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