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Refereed Peer Review

FOCAL POINT

- ★ U.S. citizens who return from living in other countries may wish to bring their pets back with them; these animals are sometimes infected with foreign diseases or parasites that may produce serious consequences.

KEY FACTS

- Veterinarians may be unsure of how to advise clients regarding the multitude of diseases and parasites that might be encountered in a foreign ecosystem.
- At least 9 months before leaving the United States, pet owners should contact the embassy of their destination country to determine its specific importation regulations.
- The Container Requirement of the International Air Transport Association Live Animal Regulations gives the specifications for proper pet transport containers for international air travel.
- Thorough veterinary physical examinations should be performed before and after bringing a pet back into the United States, including a complete blood count and blood smear.

International Travel with Pets. Part I. Regulations

Auburn University

Charles M. Hendrix, DVM, PhD

Veterinary Care, Valdosta, Georgia

Lewis T. Benefield, DVM

James S. Wohl, DVM

Bonnie C. Bloom, BS

Centers for Disease Control and Prevention,
Atlanta, Georgia

Stephanie R. Ostrowski, DVM, MPVM

The United States is increasingly becoming a nation of international travelers. In 1985, almost 12.7 million U.S. citizens traveled to overseas countries. That figure rose to more than 19 million by 1995, representing a 150% increase in international travel. Statistics are available for a variety of criteria regarding travelers from the United States; however, there are no data regarding the accompaniment of dogs or cats.¹

Veterinarians are often not aware of the consequences of clients traveling abroad with pets. The best advice that veterinarians might give to clients is simply to avoid, if possible, traveling abroad with dogs or cats. For example, pets traveling with owners may acquire diseases enzootic to other countries.² Because of the lack of information on international travel with pets, Part I of this three-part presentation is intended to inform veterinarians about issues pertinent to both leaving and returning to U.S. territorial borders. Parts II and III will discuss foreign pathogens that have been introduced into various countries by pets.

LIVING ABROAD

During international trips, travelers from the United States spend an average of 18 nights outside the country.¹ The duration of overseas trips in most instances is far shorter than the length of pet quarantines required by some foreign countries; under these circumstances, pets usually remain at home.

The situation is of course different for citizens temporarily residing outside the country (e.g., military personnel, consular personnel, missionaries, or expatriates). These citizens sometimes live outside of the United States for months or years—and they often own dogs or cats that were either acquired in the United

States and transported to the foreign country or acquired in the foreign country. In addition, visually impaired citizens living outside the United States may depend on guide dogs, hearing-impaired individuals may use hearing dogs, and mobility-impaired individuals may depend on assistance dogs. Individuals with disabilities who are anticipating foreign travel should provide the destination country with as much advance notice as possible (at least 30 days) to avoid unnecessary problems. In the United States, the Americans with Disabilities Act guarantees reasonable accommodations for the mobility of individuals with assistance dogs.

When citizens return to the United States, their pets—which may be infected with foreign diseases or parasites—are also presented for reentry into the country. The pathogens these animals carry have the potential to produce serious consequences within our borders (e.g., the primary screwworm [*Cochliomyia hominivorax*]). Veterinarians are sometimes unsure of how to advise clients regarding the multitude of diseases or parasites that might be encountered in a foreign ecosystem. The task of preparing U.S. veterinary students to become familiar with all of the animal diseases and parasites in this country is difficult enough; exotic foreign pathogens are not taught in much detail, if at all.³

EMIGRATION FROM THE UNITED STATES

The American Veterinary Medical Association's

(AVMA's) recommendations and precautions regarding foreign travel with pets are minimal. The AVMA recommends that pet owners travel with a rabies vaccination certificate if they cross international borders (especially Canada or Mexico), but no mention is made of the variety of pathogens that may be brought back into the country.⁴ It is important that all preventive vaccinations and/or medications be continued while pets are abroad. This is especially important for such parasites as *Dirofilaria immitis*.

Air Travel

At least 9 months before departure, owners should contact the embassy of the nation to which their animals are being exported (embassies are usually located in metropolitan areas, such as New York, Washington DC, or Los Angeles) to ensure that all necessary importation requirements have been fulfilled (see Travel the "Information Superhighway" Before Traveling with Pets). Veterinarians should remind pet owners that the quarantine periods in some countries might be quite lengthy (as long as 6 months). Quarantine also can be expensive, so owners might consider leaving the pet behind should the effort outweigh the benefit of pet companionship.

The AVMA provides thorough recommendations for domestic air travel. Many of these guidelines apply to international air travel as well, including a complete,

Travel the "Information Superhighway" Before Traveling with Pets

A Web site (<http://domino1.hessa.amedd.army.mil/vsdodweb.nsf> [click on Animal Import REQs]) has been created to make traveling overseas with pets as easy as possible. The site offers current information on the importation requirements of the following countries, territories, and states:

| | | | |
|-----------------------|---------|---------|----------------------|
| Australia | Denmark | Iceland | Panama |
| Austria | Egypt | Italy | Portugal |
| Azores | Finland | Japan | Puerto Rico |
| Bahrain | France | Jordan | Russia |
| Belgium | Germany | Korea | Saudi Arabia |
| Brazil | Greece | Kuwait | Spain |
| Canada | Guam | Mexico | United Arab Emirates |
| Cuba (Guantánamo Bay) | Hawaii | Norway | United Kingdom |

The site also warns that, although this information is the latest available, pet owners must be aware that rules and regulations may change on short notice. The best source for the latest and most accurate information on importation restrictions is the country of destination (i.e., by contacting the country's nearest consulate or embassy). If the pet owner is in the military, the veterinary treatment facility on the base where the individual will be stationed should also be contacted.⁵

predeparture physical examination by a veterinarian; proper identification (e.g., a collar with rabies tag); and a scheduled, postreturn physical examination.

It is imperative that owners contact airlines well in advance to check regulations and services. Pet owners should try to book a direct, midweek flight or one with a minimal number of stops. Midweek flights tend to be less crowded and less stressful, providing favorable conditions for both owners and pets. The age and size of pets, the time and distance of the flight, and pet feeding routines must be considered. During warm months, the risk of overheating pets (in the cargo hold) can be reduced by selecting early-morning or late-evening flights.

Owners should arrive at the airport early, exercise the pet lightly before the flight, and place it in a suitable carrier (see Figure 1 and Pet Carrier Requirements). Bedding or a comfortable pad should be placed in the crate, and a favorite toy or two may be added. Pets should be familiarized with the crate well before embarkation by encouraging them to sleep, eat, and drink while in the crate. Pets should be fed a light meal no less than 6 hours before departure, and water should be taken away 2 hours before departure (except on hot days). For trips lasting longer than 24 hours, owners should provide some dry kibble in a cloth or mesh bag attached to the outside of the crate that can be fed by flight personnel.⁵ Pets should be picked up promptly upon arrival at the destination.

When entering a country with a different native language, it is wise to translate pertinent information (e.g., "live animal" notice, owner contact information) into the appropriate language so local baggage handlers will understand the importance of the pet carrier's contents. A manila envelope containing clear photocopies of the



Figure 1A



Figure 1B

Figure 1—(A) Front and (B) side views of a proper pet transport carrier.

pet's medical records (see Medical Records) should be taped to the exterior of the carrier.

Owners should carry with them at all times during transit clear photocopies of the pet's medical records, contact information for the animal's veterinarian, color photographs of the pet both with and without the owner (as a safeguard if pets are accidentally released or stolen in transit), and any pet medications. Subcutaneous microchips have recently become more popular than tattooing pets for identification. Many foreign countries, however, do not have microchip scanning abilities, so tattooing may still be helpful. Social security numbers should never be tattooed on animals as they can be used to gain access to confidential personal information. Tattooing an email address is more suitable.

Maritime Travel

Today, only one ocean liner makes trips between the United States and Europe—Cunard's Queen Elizabeth 2 (QE2). For those individuals traveling by ocean liner,

the shipping line company should be contacted for travel requirements and the amenities of on-board kennels. Although maritime travel is becoming a rarity, veterinarians should be familiar with the requirements of this air-travel alternative.

Pet owners traveling on the QE2 may take their dogs, cats, or birds with them in air-conditioned comfort. Dogs may be brought on board on a leash, but it is recommended that cats board in carriers or baskets. After embarkation, pets are not permitted on any of the passenger decks, but owners may take their pets for walks on a designated area of the open deck.

Pets reside in modern kennels on the QE2's Signal Deck. Pet-owner interactions are allowed for 6 hours daily. Kennels are arranged in two levels of six, for a total of

Pet Carrier Requirements

Transport Container Requirements of the International Air Transport Association Live Animal Regulations⁶:

- Strength (enough to prevent escape)
- One open end that is covered with securely attached bars; weld mesh; or smooth, expanded metal to provide the main ventilation
- Ventilation openings on all sides, totaling a minimum of 16% of the surface area of the four sides (it should be impossible for the animal to protrude its nose or paws through the openings)
- Room to permit the animal to stand in a natural position, turn around, and lie down
- A drinking bowl to which water can be added by airline personnel without opening the transport container

Also important⁴:

- No interior projections
- Adequate handles or grips
- Leak-proof bottom covered with plenty of absorbent materials
- Exterior rims or knobs to prevent blocked air flow
- Proper label indicating "Live Animal," with arrows indicating the upright position, and the owner's name, address, and telephone number (If the owner is traveling to a new overseas residence, the address and telephone number of a friend or relative remaining in the United States should be listed as an alternate contact.)

twelve compartments. There are two cage sizes to accommodate cats/small dogs and large dogs. Owners should contact the QE2 for spatial details. Space limitations make it impossible to accommodate dogs larger than a German shepherd. Cunard Lines provides a list of adult dog breeds that are excluded because of size; however, a formula is given to determine the size of the kennel that will accommodate growing puppies or immature dogs. It is not customary to place two animals in the same cage, and it would be the responsibility of the owners should

Medical Records

In addition to medical history, it is important that the medical records include the following:

Owner Information:

- Name, address, telephone number, fax number, and email address

Pet Information:

- Name
- Age or date of birth
- Sex
- Breed
- Color, coat type, and markings (including distinguishing marks)
- Identifying microchip number, type, implantation site, and scanner type
- Location of tattoo (if present)
- Pet's place of residency for the previous 6 months, including information regarding previous places of residency

Additional:

- Name and address of the exporter
- Name and address of the consignee
- Means of transport, including flight number

they wish to do so. There are no staff veterinarians aboard the QE2.

As with air travel, it is recommended that seafaring owners contact a veterinarian for information regarding traveling with pets. A valid health certificate is required for the pet to be brought aboard. If owners are landing in or relocating to the United Kingdom, they must obtain licenses for dogs or cats. There are two types of licenses, one to land animals for quarantine and one to transport animals through the United Kingdom to another European port. The Ministry of Agriculture, Fisheries, and Food^a must be contacted to receive these licenses.⁷ If other international destinations are applicable, their respective embassies must be contacted for quarantine details.

TRAVEL WITHIN EUROPE

European communities have become more open to in-

^aMinistry of Agriculture, Fisheries, and Food, Government Buildings (Toy Jug Site), Hook Rise South, Tolworth, Surbiton, Surrey, KT6 7NF, England.

TABLE I
United States Public Health Service (USPHS) Division of Quarantine Contact List

| <i>All Ports In:</i> | <i>USPHS Location</i> | <i>Telephone Number</i> | <i>Fax Number</i> |
|---|-----------------------|--|-------------------|
| AL, LA, MS, OK, TN, GA, NC, SC | Atlanta, GA | (404) 639-1220 (404) 639-1221 | (404) 639-1224 |
| FL, PR, VI | Miami, FL | (305) 526-2910 | (305) 526-2798 |
| CT, DE, DC, ME, MD, MA, NH, NJ, NY, RI, VT, PA (except Erie) | New York, NY | (718) 553-1685 (718) 553-1686 (718) 553-1687 (718) 553-0116 (718) 553-0123 | (718) 553-1524 |
| IL, IN, KY, MI, MN, MO, OH, WI, (Erie, PA) Toronto, Ontario, Canada | Chicago, IL | (312) 894-2961 (312) 894-2968 (312) 894-2960 | (312) 884-2970 |
| AK, ID, MT, ND, OR, WA Vancouver, Calgary, and Edmonton, British Columbia, Canada | Seattle, WA | (206) 553-4519 | (206) 553-4455 |
| Northern CA; UT; Reno, NV | San Francisco, CA | (415) 876-2872 (415) 876-2873 (415) 876-2875 | (415) 876-2796 |
| Southern CA; AZ; CO; NM; TX; Las Vegas, NV; US/Mexican Border | Los Angeles, CA | (310) 215-2365 | (310) 215-2285 |
| HI | Honolulu, HI | (808) 861-8530 (808) 861-8531 | (808) 861-8532 |

ternational travelers. Travelers can easily cross most European international borders with and without pets. For example, a Turkish citizen was visiting Dusseldorf, Germany with his puppy, which had a questionable vaccination history. The puppy developed rabies, resulting in a significant epidemiologic dilemma. Dusseldorf had been rabies-free for a year; as a result of the puppy's visit, the city was quarantined and vaccination programs were instated.⁸ This illustrates the ease with which pets can travel throughout most of Europe without even a suggestion of inspection by a veterinarian or other public health official.

Some countries in Europe have been closed to animals from other countries, including the United Kingdom, Sweden, and Norway. In these countries, dogs and cats must be quarantined for 6 and 4 months, respectively. Dogs and cats may travel freely within other European countries if they are vaccinated against rabies and serologic tests demonstrate adequate levels of antibodies. Dogs must also be vaccinated against canine distemper and leptospirosis.⁹⁻¹¹

RETURNING TO THE UNITED STATES

Before returning to the United States, pets must undergo a complete physical examination, including a com-

plete blood count and blood smear. Depending on the geographic origin of the pet, a blood smear might reveal the presence of microfilariae of *D. immitis* or other filariids or trypanosomes, which are parasites easily contracted in foreign countries. Pets should be dipped in an acaricidal or insecticidal solution to remove any fleas, ticks, or mites that may have infested the animal while overseas. A thorough fecal examination for helminths and protozoan parasites should be performed and, if the animal is found to be infected, suitable parasiticides administered.

Upon arrival in the United States, owners must schedule another veterinary physical examination. This examination should also include a complete blood count and blood smear. Pets should again be dipped in an acaricidal or insecticidal solution to resolve any infestations that may have occurred while the animal was in transit. There may be additional restrictions should owners and pets try to reenter the United States through Puerto Rico, Guam, or Hawaii. Before returning through these ports, owners must contact animal health inspectors for additional restrictions (Table I).

The general reentry requirement is that all dogs and cats imported into the United States be visually inspected by United States Public Health Service (USPHS) per-

sonnel. Only those animals that are free of gross evidence of infectious disease may be admitted. Animals showing signs of illness, such as emaciation, skin lesions, nervous system disturbances, jaundice, or diarrhea, must be examined, tested, or treated at the owner's expense by a licensed veterinarian designated by the USPHS. The veterinarian should refer to the USPHS when the above conditions are present.

Reentry of Cats

Cats are subject only to the general requirements for entry as stated above. Rabies vaccination is not required.

Reentry of Dogs

Regardless of age, dogs may be admitted to the United States without restriction if they appear healthy and have been in a rabies-free area for at least the 6 months immediately preceding arrival in the United States or since birth. The USPHS provides a current list of rabies-free areas (Table I).

Dogs arriving from countries other than those listed as rabies-free may be admitted to the United States if they are 3 months of age or older, free of gross evidence of infectious disease, and accompanied by a valid certificate of rabies vaccination (all three requirements must be met). Vaccination certificates must identify the dog; be signed by a licensed veterinarian; and specify the expiration date, which cannot be earlier than the arrival date. If the expiration date is not indicated on the certificate, the certificate must be valid for only 1 year from the date of issue. Vaccination certificates should also specify the date of vaccination, which cannot be less than 30 days before the arrival date.

For dogs that are subject to the rabies vaccination requirement and appear to be healthy but do not have a valid rabies certificate as outlined above, the Centers for Disease Control and Prevention (CDC) Form 75.37 must be completed (generally at the point of entry) and submitted to the Quarantine Stations in California, Florida, Hawaii, Illinois, New York, Texas, Washington, or Atlanta (Table I). CDC Form 75.37 must be prepared if dogs are older than 3 months of age and have no rabies certificate. The USPHS may release dogs if owners agree to place them in confinement immediately upon arrival at their destination and to have them vaccinated against rabies within 4 days. These dogs must then be confined for 30 days after vaccination. *Confinement* is defined as restriction of an animal to a building or other enclosure, in isolation from other animals and people except for contact necessary for its care. If allowed out of the enclosure, owners must muzzle dogs and use a leash.

The CDC Form 75.37 must also be prepared if dogs

are older than 3 months of age and have certificates showing that a rabies vaccination was administered less than 30 days before arrival. Owners are required to confine such dogs for the balance of the 30 days. Finally, Form 75.37 must be prepared for dogs younger than 3 months of age. Owners are required to confine dogs until they are 3 months of age and then have them immunized and confined for an additional 30 days. A rabies certificate presented for dogs younger than 3 months of age cannot be accepted.¹² The USDA should be contacted for requirements specific to dogs used for working livestock to prevent importation of *Echinococcus* species, which are tapeworms associated with the development of hydatid cysts in livestock and humans.

SUMMARY

International travel among U.S. citizens continues to accelerate, particularly to tropical countries, with Africa being a frequent destination.³ Unwary dog and cat owners living abroad have the potential to introduce a variety of foreign diseases or parasites into the United States, which may pose a serious threat to humans and other animals in this country. Great care must be taken when veterinarians examine animals returning to the United States; vigilance is necessary to ensure that foreign diseases or parasites do not gain entry. Most countries have developed complex restrictions for the introduction of animals, animal products, and contaminated articles to prevent exotic infections. Parts II and III of this article discuss an assortment of foreign pathogens that have been introduced into the United States and other countries by the animals of unwitting pet owners.

About the Authors

Drs. Hendrix and Wohl are affiliated with the Department of Pathobiology and the Department of Small Animal Surgery and Medicine, respectively, and Ms. Bloom is a senior veterinary student at the College of Veterinary Medicine, Auburn University, Alabama. Dr. Benefield is affiliated with Veterinary Care, Valdosta, Georgia. Dr. Ostrowski is affiliated with the Division of Quarantine, Centers for Disease Control and Prevention, Atlanta, Georgia. Dr. Wohl is a Diplomate of the American College of Veterinary Internal Medicine and the American College of Veterinary Emergency and Critical Care. Dr. Ostrowski is a Diplomate of the American College of Veterinary Preventive Medicine.

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