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## Canines Cry Out: Is Six Months in a British Quarantine a Necessity for Rabies Prevention?

"Our family will only remember England for its cruelty to animals and that it was here our English cocker spaniel, who came back to its roots, was sent to prison and had to die on a cold, cement floor without his loved ones."<sup>1</sup>

#### I. Introduction

The death of Danish Diplomat Henrik Sorensen's family dog in August 1996 brought greater attention to Britain's already controversial quarantine system.<sup>2</sup> After two months in quarantine, the Sorensens' pet, 13-year-old Mr. Bogie, died in a British kennel, and all that was left for the grieving family was the dog's ashes in a coffee jar.<sup>3</sup>

Britain's quarantine law mandates that all domestic animals brought into the country must be detained and quarantined at the owner's expense for six months.<sup>4</sup> This strict policy has been touted as the world's toughest rabies control program.<sup>5</sup> Opponents of Britain's policy on quarantine are urging a re-examination of the

<sup>1.</sup> Hugh Muir, Diplomat's Dog Sent Back By Kennels in a Coffee Jar, DAILY TELEGRAPH (London), Sept. 25, 1996, available in 1996 WL 3980649. In his letter of complaint to the Foreign Office, Diplomat Henrik Sorensen states: "The quarantine system is cruel and ought to be stopped immediately. I must add that the kennel may remind a visitor of the conditions in Auschwitz. The incinerator - located in the back of the kennel - is constantly smoking . . . I am very upset that I was not given the possibility to see my dog before post mortem, and that I was not allowed to be present during cremation. What kind of law is this?" Valerie Elliot, Diplomat Pledges to Fight Quarantine Laws After His Dog Dies 'In Prison Cage,' TIMES (London), Sept. 25, 1996, available in 1996 WL 6521402.

<sup>2.</sup> UK's Rabies Law Could Be Scrapped, XINHUA NEWS AGENCY, Oct. 14, 1996, available in LEXIS, Asiapc Library, Curnws File [hereinafter UK's Rabies Law]. Britain's quarantine law has been in force since 1901. Id.

<sup>3.</sup> Muir, *supra* note 1. British law requires that an animal which dies while in quarantine must be cremated soon after a post-mortem examination. The Rabies (Importation of Dogs, Cats and Other Mammals) Order, S.I. 1974, No. 2211.

<sup>4.</sup> S.I. 1974, No. 2211 at § 5.

<sup>5.</sup> UK's Rabies Law, supra note 2.

law. They point to the quarantine system's negative side effects, such as distress to pet owners and illness and death of pets.<sup>6</sup> In addition, they contend that new scientific trends in rabies control render the British system outdated and obsolete.

Great Britain may now stand alone if the country does not choose to follow the new trend in quarantine law reform. For example, until 1997, Hawaii required a four-month quarantine of domestic animals entering the state.<sup>7</sup> However, the law now mandates a shorter thirty day quarantine requirement.<sup>8</sup> Prior to the amendment, Hawaii's quarantine law sparked much controversy regarding the burden the law imposed on persons dependent on seeing-eye dogs.<sup>9</sup> Consequently, lawmakers realized the need for quarantine law reform. On April 30, 1996, the Ninth Circuit held in *Crowder v. Kitagawa*<sup>10</sup> that the 120-day quarantine of pets entering Hawaii violated Title II of the Americans with Disabilities Act ("ADA").<sup>11</sup> In that case, a class of visually impaired persons who use seeing-eye dogs brought suit against the state of Hawaii, seeking exemption from the 120-day quarantine

9. See Mobility/Access, 20 MENTAL & PHYSICAL DISABILITY L. REP. 382 (1996) (discussing Crowder v. Kitagawa and its effect on the state of quarantine laws in Hawaii).

10. 81 F.3d 1480 (9<sup>th</sup> Cir. 1996).

<sup>6.</sup> See Rachel Sylvester, Pet Passport Plan Clears First Hurdle, DAILY TELEGRAPH (London), June 5, 1996, available in 1996 WL 3954764.

<sup>7.</sup> The importation of dogs, cats and other carnivores into Hawaii is governed by chapter 4-29 of the State of Hawaii, Department of Agriculture Administrative Rules. Preshipment requirements include a health certificate, an electronic microchip from the State of Hawaii, Department of Agriculture, implanted in the animal not less than three months prior to arrival, inactivated monovalent rabies vaccine, and other vaccinations against common infectious disease. HAW. ADMIN. RULES, § 4-29-8 (Weil 1997). For requirements to qualify for the amended 30-day quarantine, see HAW. ADMIN. RULES, at § 4-29-8.1.

<sup>8.</sup> See Pet Quarantine Cut to 30 Days, Despite Concerns (visited Jan. 26, 1998) <http://starbulletin.com/specials/quarantine.html> [hereinafter Despite Concerns]. The new law, effective May 23, 1997, provides for a 30-day quarantine for pets entering Hawaii and meeting the following strict requirements: a minimum of two pre-arrival vaccinations with an inactivated monovalent rabies vaccine; an implanted microchip obtained from the State of Hawaii, Department of Agriculture; rabies testing not less than ninety days and not more than twelve months prior to arrival (with a serum containing at least 0.501.U. per milliliter of rabies antibodies); rabies testing after arrival (with a serum containing at least 0.501.U. per milliliter of rabies antibodies); and a ninety-day post-quarantine observation period in which the pet is released to the owner. See HAW. ADMIN. RULES, § 4-29-8.1. For a further explanation about pre- and post-arrival requirements, quarantine station procedures, policies, rules, operation and fees, see STATE OF HAWAII, DEPARTMENT OF AGRICULTURE, ANIMAL QUARANTINE STATION INFORMATION BROCHURE (1997).

law.<sup>12</sup> In pertinent part, the state of Hawaii argued that it was in compliance with the ADA by providing two free residences for guide dog users at the quarantine station, by allowing guide dog users to train with their dogs at the station and by allowing their dogs to be taken off the station grounds for a limited time accompanied by an inspector.<sup>13</sup> The Ninth Circuit disagreed that these procedures constituted "reasonable modifications" for persons with visual impairments who rely on guide dogs.<sup>14</sup> The Ninth Circuit reversed the district court's grant of summary judgment in favor of Hawaii and found that the plaintiffs' claims were worthy of trial.<sup>15</sup>

On June 24, 1996, the Hawaii legislature approved Act 293,<sup>16</sup> making guide dogs exempt from the four-month quarantine requirement, subject to a vaccination regime.<sup>17</sup> This temporary program, while affording the state the opportunity to evaluate the effectiveness of its quarantine requirements, managed to fuel the forward momentum of quarantine law reform in Hawaii. In light of Hawaii's recently amended thirty-day quarantine requirement combined with positive developments in the *Crowder* case, lawmakers in Great Britain should look to Hawaii as a model for modern-day change in their antiquated rabies-prevention regime.

Part II of this Comment will first examine the facts about rabies and offer a layman's explanation of the medical aspects of the disease, how it is transmitted and the treatments that are

<sup>12.</sup> Id. The class also claimed infringement of their constitutional rights to travel, equal protection and substantive due process. Id. at 1486. However, the Ninth Circuit did not address these claims because if on remand the plaintiffs prevailed on their ADA claim, resolution of the constitutional claims would be unnecessary. Id.

<sup>13.</sup> See Ilene C. Caroom, Access Issues: Eye on Hawaii (visited Jan. 26, 1998) <a href="http://www.ismi.net/iaadp/access.html">http://www.ismi.net/iaadp/access.html</a>>.

<sup>14.</sup> Crowder, 81 F.3d at 1480.

<sup>15.</sup> Id. The case was then remanded to the district court for an evaluation of alternatives available to Hawaii's then-existing four-month quarantine law. Id. at 1486. A settlement was reached on January 15, 1998, whereby the parties agreed on proposed rules allowing guide dogs to bypass the quarantine. See Rabies Quarantine Lifted in Hawaii for Guide Dogs, DALLAS MORNING NEWS, Jan. 18, 1998, available in 1998 WL 2505762. Governor Ben Cayetano is expected to approve the new guidelines within months. Id.

<sup>16. 1996</sup> Haw. Sess. Laws 293 §§ 1-2. "This exemption from the existing quarantine requirements is intended as a temporary, one-year exemption until the department of agriculture concludes its evaluation of the State's requirements." *Id.* 

<sup>17.</sup> Id. Two vaccinations with a monovalent inactivated rabies vaccine shall be administered to the dog prior to entry into the State; pre- and post-entry antibody tests will be administered to check for adequate titers. Id.

available. Part III will then examine the present state of Great Britain's quarantine law, highlight the weaknesses of the law and consider some alternatives to the six-month quarantine. Part IV of this Comment will examine the present state of Hawaii's rabies prevention regime, and analyze its recent trend away from prolonged quarantine. Finally, Part V of this Comment will suggest some of the reasons why Great Britain should follow in Hawaii's footsteps and make changes in its present system, which was enacted long before there were scientific measures to prevent the spread of rabies.

#### II. The Facts About Rabies

Rabies is an ancient disease that remains highly feared in today's society. Although the disease can now be effectively controlled and prevented, if undetected it is almost always fatal. The following section is a somewhat simplified explanation of the complicated disease that has put lawmakers in Great Britain and Hawaii in the midst of controversy.

#### A. The History of Rabies

The word "rabies" comes from Sanskrit "rabhar," which means "to do violence."<sup>18</sup> The history of this disease dates further back in time than any other infectious disease.<sup>19</sup> The first recorded description of rabies is thought to have come from Democritus in the 4th century B.C., when he wrote "that dogs suffer from the madness. This causes them to become very irritable and all animals they bite become diseased."<sup>20</sup> Many ancient writers discussed rabies in their works. Homer in the *Iliad* wrote that the dog Sirius exerted a "malignant influence upon the health of mankind."<sup>21</sup> The effects of this disease heavily influenced Greek mythology, as evidenced by the creation of special gods to counteract rabies and heal those who were infected.<sup>22</sup>

<sup>18.</sup> DAVID W. MACDONALD, RABIES AND WILDLIFE: A BIOLOGIST'S PERSPECTIVE 1 (1980).

<sup>19.</sup> Lise Wilkinson, Understanding the Nature of Rabies: An Historical Perspective, in RABIES (J.B. Campbell & K.M. Charlton eds., 1988).

<sup>20.</sup> GEORGE M. BAER, THE NATURAL HISTORY OF RABIES 1 (2d ed. 1991). 21. Id.

<sup>22.</sup> Id. Arisaeus, son of Apollo, counteracted the effect of Rabies, while Artemis was the healer of the disease. Id.

Rabies epidemics have affected nearly all parts of the world. Reports of outbreaks in England date back to as early as 1026,<sup>23</sup> and the disease raged through North America in the late 1700s.<sup>24</sup> Rabies prevention in the early centuries ranged from mandatory muzzling of dogs<sup>25</sup> to the burning of dogs in blazing huts.<sup>26</sup> However, the spread of the disease continued, with the transmission of the virus difficult to contain among wild animals.

In the late 1800s, scientists began experimenting with the transmission of rabies from human to animals, and from animals to animals.<sup>27</sup> Louis Pasteur experimented with the saliva of a dead child infected with rabies; by injecting the saliva into rabbits he produced a systematic disease called pneumococcus/streptococcus septicemia.<sup>28</sup> In later experiments, he injected central nervous system material and spinal cord fluid into rabbits, which demonstrated that the disease was not transmitted only through saliva.<sup>29</sup> Pasteur also found that by injecting infected brain material directly into the brains of animals, he could shorten the incubation period of the disease by one to three weeks.<sup>30</sup>

Pasteur's findings represented great advances in the study of the disease. From his work developed a method of antirabies immunoprophylaxis (protection against rabies).<sup>31</sup> This process involved passing the virus strain from a rabid cow to rabbits through ninety serial intracerebral passages.<sup>32</sup> After a six to seven day incubation period, the rabbits' spinal cords were removed and dried at room temperature or desiccated.<sup>33</sup> The virulence of the spinal cord tissue decreased with each consecutive day of drying.<sup>34</sup> Pasteur demonstrated that by inoculating dogs with a series of

<sup>23.</sup> BAER, supra note 20, at 3. There was an assertion that "there was madness among the dogs during that year." Id.

<sup>24.</sup> Id. at 5. In 1779, rabies was rampant in Philadelphia and Maryland. Id. In that year, rabies was found in Rhode Island as an epizootic among dogs and other domestic animals. Id. Rabies reappeared on the East Coast in 1810, especially in Ohio. Id.

<sup>25.</sup> MACDONALD, supra note 18, at 4.

<sup>26.</sup> BAER, supra note 20, at 9.

<sup>27.</sup> Id. at 12. Louis Pasteur published his first report on rabies in 1881. Id. 28. Id.

<sup>29.</sup> Id.

<sup>30.</sup> BAER, supra note 20, at 12.

<sup>31.</sup> Id. at 573.

<sup>32.</sup> Id.

<sup>33.</sup> Id.

spinal cord suspensions of increasing virulence, the dogs were able to resist the rabies virus.<sup>35</sup>

This technique proved to be a sound preventative measure against rabies if administered before exposure to the disease. In 1885, Pasteur applied this technique to a child, Joseph Meister, post-exposure.<sup>36</sup> Sixty hours after the child was bitten by a rabid dog, Pasteur administered a course of thirteen inoculations of infected cord suspensions, each suspension decreasing in dessication.<sup>37</sup> The child survived, the "Pasteur Treatment" was born, and the fight against rabies began.

#### B. The Medical Aspects of Rabies

Rabies is a bullet-shaped virus consisting of two components: an internal helical structure of nucleic acid surrounded by a protein layer.<sup>38</sup> There are at least five known strands of rabies and more than seventy-five related rabies-like viruses.<sup>39</sup> The virus attacks cells by exposing its nucleic acid and taking over the cellular mechanism, using the cells to synthesize virus nucleic acid and proteins instead of new cellular material.<sup>40</sup> The rabies virus must reside in a host in order to survive.<sup>41</sup> Once inside the host, the virus moves slowly from the bite site to the central nervous system, and finally to the brain.<sup>42</sup>

1. The Transmission of Rabies and Symptom Development.—The rabies virus can infect most warm-blooded animals, and in most cases ends in the animal's death.<sup>43</sup> The most highly susceptible animals include foxes, coyotes, jackals, wolves, kangaroo bats, cotton rats and common field voles.<sup>44</sup> Dogs are considered

<sup>35.</sup> BAER, supra note 20, at 573.

<sup>36.</sup> Id.

<sup>37.</sup> Id.

<sup>38.</sup> MACDONALD, supra note 18, at 9.

<sup>39.</sup> DANIEL B. FISHBEIN ET AL., RABIES CONCEPTS FOR MEDICAL PROFESSIONALS 11 (2d ed. 1986) [hereinafter RABIES CONCEPTS]. The viruses are called Rhabdoviruses and are classified together in the family, Rhabdovidae. *Id.* 40. MACDONALD, *supra* note 18, at 9.

<sup>41.</sup> RABIES CONCEPTS, *supra* note 39, at 60. Survival of the virus outside a live animal is affected by a variety of factors including temperature, sunlight, pH and moisture. *Id.* As a general rule, it can be assumed that the virus is no longer present once the saliva has dried. *Id.* 

<sup>42.</sup> Id. at 13.

<sup>43.</sup> Id. at 11.

<sup>44.</sup> COLIN KAPLAN ET AL., RABIES: THE FACTS 1 (2d ed. 1986).

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only moderately susceptible, but are the most likely to spread the disease to humans because of their close contact.45

Infection of the salivary glands causes large amounts of the virus to be present in the saliva.<sup>46</sup> The rabies virus therefore spreads through the saliva of infected animals, most commonly by the bite of a rabid animal.<sup>47</sup> Once infected, a potential victim may have to wait months before any symptoms appear.<sup>48</sup> The normal incubation period is between two and eight weeks, depending on the proximity of the bite site from the central nervous system.<sup>49</sup> Dogs, cats, foxes and skunks are known as incubatory carriers, meaning they can spread the disease a few days prior to the onset of clinical symptoms.<sup>50</sup>

When the incubation period ends, the victim begins to manifest symptoms of the disease.<sup>51</sup> These symptoms include nausea. stomach-aches, diarrhea and a tingling numbress or pain around the bite site.<sup>52</sup> Also, anxiety, restlessness, depression, a feeling of tension, a sense of foreboding, nightmares or sleeplessness and lack of concentration have been reported.<sup>53</sup> If the victim's brain is seriously affected, she may develop furious rabies; if the spinal cord is the area significantly affected, she may develop paralytic or dumb rabies.54

Both humans and animals may experience either form of rabies. The more familiar type, furious rabies, causes death within one week of symptom manifestation.<sup>55</sup> This form of rabies is

<sup>45.</sup> Id.

<sup>46.</sup> RABIES CONCEPTS, supra note 39, at 11.

<sup>47.</sup> Id. at 60. Airborne transmission of the virus remains extremely rare, with only four cases of human airborne transmission ever reported; two from a cave that housed a large number of infected bats, and two from severe exposure to aerosols of rabies virus. Id. In addition, human-to-human transmission has also occurred, despite its rarity: a patient died of rabies after receiving a corneal transplant from a man who had died of undiagnosed rabies. Human-to-Human Transmission of Rabies by a Corneal Transplant - Idaho, 28 MORBIDITY & MORTALITY WEEKLY REP. 109 (1979) [hereinafter Human-to-Human Transmission].

<sup>48.</sup> MACDONALD, supra note 18, at 11.

<sup>49.</sup> Id.

<sup>50.</sup> *Id.* 51. *Id.* 

<sup>52.</sup> Id.

<sup>53.</sup> KAPLAN, supra note 44, at 11.

<sup>54.</sup> MACDONALD, supra note 18, at 11. There are typically five phases of the disease, characterized by the incubation phase, prodrome phase (or warning phase), acute neurological phase, coma, and recovery or death. RABIES CONCEPTS, supra note 39, at 43.

<sup>55.</sup> KAPLAN, supra note 44, at 46-47.

characterized by hydrophobia (fear of water) and aerophobia (fear of air), periods of extreme excitement mixed with periods of rationality, and finally unconsciousness and complete paralysis.<sup>56</sup>

Paralytic or dumb rabies is rarer in humans, but is more common than furious rabies in most animals, including dogs, foxes and cattle.<sup>57</sup> Typically, the laryngeal muscles of the victim become paralyzed, causing the victim to become "literally dumb."<sup>58</sup> This form of rabies is characteristic of muscle contractions (giving the victim a shivering-like appearance), drooping of the eyelids, inability to move the eyes in different directions, paralysis of the tongue and deafness.<sup>59</sup> Although paralytic rabies is less severe than furious rabies, the end result, death, is common to both.<sup>60</sup>

2. Diagnosis, Treatment and Prevention.—Rabies can be diagnosed postmortem and antemortem.<sup>61</sup> While the patient is still alive, the techniques used to diagnose rabies include (1) a corneal test, (2) neck skin biopsy, (3) isolation of the virus from saliva or other bodily fluids, or (4) demonstration of the rabies antibody in serum or cerebral spinal fluid (CSF).<sup>62</sup> Postmortem, the means of diagnosis include (1) an electron microscopic examination of fixed brain tissue, (2) immunoflourescent studies of fresh brain tissue (IFA) or (3) virus isolation.<sup>63</sup>

A healthy domestic animal that bites a person should be confined and observed for two days and evaluated by a veterinarian.<sup>64</sup> If any signs suggestive of rabies develop, the animal should be destroyed and decapitated so that the brain can be tested for rabies.<sup>65</sup> If a flourescent antibody examination reveals that the brain is negative for the rabies virus, then the saliva can be assumed to be rabies-free and the bitten person need not be treated.<sup>66</sup>

60. Id. at 47.

63. Id.

<sup>56.</sup> Id. at 35-40.

<sup>57.</sup> Id. at 45.

<sup>58.</sup> Id.

<sup>59.</sup> KAPLAN, *supra* note 44, at 46-47.

<sup>61.</sup> RABIES CONCEPTS, *supra* note 39, at 37-42. Currently, there is no reliable test that can detect the presence of the rabies virus in a living animal during the incubation period. MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, RABIES PREVENTION AND CONTROL 2 (1994) [hereinafter MAFF].

<sup>62.</sup> Human-to-Human Transmission, supra note 47, at 109, 110.

<sup>64.</sup> Rabies Prevention - United States, 1984, 1, 4 (1984), reprinted in 33 MORBIDITY & MORTALITY WEEKLY REP. 393 (1984) [hereinafter Rabies - U.S.]. 65. Id.

Treatment for rabies exposure in humans is most commonly administered by post-exposure prophylaxis through local treatment of the wound and immunization.<sup>67</sup> Post-exposure prophylaxis for rabies can be successfully administered because the incubation period is long enough to allow active antibody production to begin during the incubation period of the disease.<sup>68</sup> A thorough washing of the bite site and any scratches with soap and water serves as the most effective measure for preventing rabies.<sup>69</sup>

Post-exposure antirabies immunization includes administering the antibody as well as the vaccine.<sup>70</sup> However, the rabies vaccine should not be administered indiscriminately due to the high cost of post-exposure prophylaxis.<sup>71</sup> The antibody is administered only once, at the beginning of the antirabies prophylaxis, to provide immediate antibodies until the patient responds to the vaccine and begins to produce her own antibodies.<sup>72</sup>

The preventative measures for animals primarily include preexposure vaccines. Two types of vaccines exist on the market: the modified live virus (MLV) and the inactive or killed virus.<sup>73</sup> Both vaccines stimulate the immune system to develop antibodies against rabies.<sup>74</sup> Boosters are administered every one to three years, depending on the duration of immunity of the vaccine or on local laws regarding vaccination requirements.<sup>75</sup> If an animal with an up-to-date rabies vaccination is exposed to rabies, the animal should be immediately revaccinated and leashed for ninety days for observation.<sup>76</sup> A domestic animal exposed to rabies without an up-

<sup>67.</sup> Id. Pre-exposure immunization may be offered to those persons who work in high-risk jobs or areas, such as veterinarians, animal handlers, and laboratory workers, as well as persons spending extended periods of time in foreign countries where rabies remains a constant threat. Id. at 7. The reasons for pre-exposure prophylaxis include providing protection to persons with unapparent exposure to the virus, protecting persons whose post-exposure prophylaxis may be delayed, and decreasing the number of vaccine doses needed. Rabies - U.S., supra note 64, at 7.

<sup>68.</sup> RABIES CONCEPTS, supra note 39, at 29.

<sup>69.</sup> Id. at 52. In experimental animals, this has been shown to markedly reduce the likelihood of rabies. Id. However, cleansing of the wound alone cannot be relied upon to prevent the disease. KAPLAN, supra note 44, at 62.

<sup>70.</sup> Rabies - U.S., supra note 64, at 2.

RABIES CONCEPTS, supra note 39, at 50.
Rabies - U.S., supra note 64, at 5.

<sup>73.</sup> WORLD HEALTH ORGANIZATION, WHO EXPERT COMMITTEE ON RABIES 12-13 (1992) [hereinafter WHO]. Inactive vaccines have been shown to be effective in mass canine immunizations programs. Id. at 12.

<sup>74.</sup> Id. at 12-13.

<sup>75.</sup> RABIES CONCEPTS, supra note 39, at 53.

<sup>76.</sup> Id.

to-date vaccination should be destroyed in order to prevent the further spread of the disease.<sup>77</sup>

The MLV vaccine is most often used in areas where there is a rabies epidemic.<sup>78</sup> The inactive or killed virus is preferred in areas where the rabies virus remains under control.<sup>79</sup> Rabies vaccines licensed for use by the Department of Agriculture are not required by law to be 100% effective.<sup>80</sup> In fact, the Department only insists upon an 85% efficacy rate.<sup>81</sup> In addition, there have been several findings of vaccine-induced rabies, an occurrence most often linked to the MLV vaccine.<sup>82</sup>

In light of these inconsistencies, the controversy about rabies vaccines and their efficacy continues. Accordingly, other preventative measures for rabies control exist, in conjunction with vaccination. The World Health Organization (WHO) suggests three basic elements to a program to control rabies in dogs and other domesticated animals.<sup>83</sup> The first element is epidemiological surveillance.<sup>84</sup> This basic step in any rabies control program is essential to physicians in determining post-exposure treatment, and to veterinarians in deciding what measures to take toward the animal responsible for the outbreak.<sup>85</sup> The second essential element is a mass vaccination campaign, whereby at least 75% of the dog population in each community should be vaccinated within one month.<sup>86</sup> Depending on the dog population turnover, a mass vaccination campaign should be carried out every one to two years.<sup>87</sup> Such a campaign could be implemented via house-to-

<sup>77.</sup> Id.

<sup>78.</sup> WHO, supra note 73, at 29.

<sup>79.</sup> Id. The management of the inactivated vaccine in the field is easier than the MLV vaccine; it is less sensitive to changes in temperature, and there is no risk of self-inoculation to the vaccinator. Id.

<sup>80.</sup> See Daniel B. Fishbein et al., Rabies Prevention in Hawaii, 49 HAW. MED. J. 98 (1990) [hereinafter Rabies - Hawaii].

<sup>81.</sup> Id.

<sup>82.</sup> See James B. Esh et al., Vaccine-Induced Rabies in Four Cats, 180 J. AM. VET. MED. A. 1336, 1337 (1982); Niels C. Pedersen et al., Rabies Vaccine Virus Infection in Three Dogs, 172 J. AM. VET. MED. A. 1092 (1987); Dwight A. Bellinger et al., Rabies Induced in a Cat by High-Egg-Passage Flury Strain Vaccine, 183 J. AM. VET. MED. A. 997 (1983); C. A. Whestone et al., Use of Monoclonal Antibodies to Confirm Vaccine-Induced Rabies in Ten Dogs, Two Cats, and One Fox, 185 J. AM. VET. MED. A. 285, 286 (1984).

<sup>83.</sup> WHO, supra note 73, at 28.

<sup>84.</sup> Id.

<sup>85.</sup> Id.

<sup>86.</sup> Id. at 29.

house visits, fixed vaccination posts and mobile clinics.<sup>88</sup> The last basic element to a rabies control program includes dog population management, such as movement restriction, habitat control and reproduction control.<sup>89</sup>

#### III. Rabies Prevention in Great Britain

Great Britain's policy on rabies prevention mandates a sixmonth quarantine for all pets entering the country.<sup>90</sup> Britain maintains rabies-free status<sup>91</sup> due to a policy that has been hotly debated throughout the years. Great Britain's quarantine laws have been in force for almost one hundred years.<sup>92</sup> The primary aim of Britain's policy is "to prevent rabies from entering the country through strict import controls, compulsory quarantine requirements (including vaccination of imported cats and dogs), severe penalties for offenders and the active awareness and support of the public."93 Britain's quarantine policy has been described by opponents as the "British Gulag."94 Healthy family pets are incarcerated for six months, and many die while in quarantine.95 Moreover, a quarantined animal has never died of rabies.<sup>96</sup> Opponents of the quarantine law argue that the policy is cruel and inhumane, leads to animal smuggling, and is discriminatory against persons who rely on guide dogs.<sup>97</sup> In addition, with today's effective vaccination programs it is possible to eradicate the need for such an antiquated and obsolete system.<sup>98</sup> Furthermore, opponents argue that the fear of rabies is being fostered by

93. MAFF, supra note 61, at 4.

94. See PASSPORTS FOR PETS, THE ALTERNATIVE TO QUARANTINE.

95. Id.

<sup>88.</sup> WHO, *supra* note 73, at 30. Fixed vaccination posts are most effective when placed about 500 meters or within a 10-minute walk from the community. *Id.* 

<sup>89.</sup> Id. at 30-31.

<sup>90.</sup> See S.I. 1974, No. 2211.

<sup>91.</sup> See WHO, supra note 73, at 42. A rabies-free area is an area in which there is an effective import policy and no case of indigenously acquired rabies has been confirmed in human or animals within the past two years. Id.

<sup>92.</sup> See Martin Delgado, Vets May Abandon Support For Quarantine; How the Standard Reported Last March on the Growing Pressure For a Change in the Quarantine Law, EVENING STANDARD, July 15, 1996, at 14.

<sup>96.</sup> Simon Hoggart, Sketch: Back From Recess Into Quarantine, THE GUARDIAN, June 5, 1996, available in 1996 WL 4027752.

<sup>97.</sup> PASSPORTS FOR PETS, supra note 94.

quarantine kennel owners and their veterinarians in an effort to continue profiting from the law.<sup>99</sup>

#### A. Quarantine of Pets in Great Britain

In pertinent part, the main provisions of Great Britain's quarantine law (the Order)<sup>100</sup> provide for the detainment and isolation of pet<sup>101</sup> animals in quarantine at the owner's expense for a period of six calendar months.<sup>102</sup> The Order further provides that dogs and cats in quarantine must have up-to-date rabies vaccinations.<sup>103</sup> In addition, the Order provides that animals that fail to comply with the provisions "may be seized and, if appropriate, destroyed by an inspector or a constable."<sup>104</sup>

Each month, an average of eight hundred dogs and cats are locked away in quarantine.<sup>105</sup> Because entry of an animal into quarantine can be a very stressful time for both animal and owner, the Ministry of Agriculture, Fisheries and Food (MAFF) has initiated the Voluntary Code of Practice (the Code) to provide guidance to quarantine owners and veterinarians.<sup>106</sup> The Code

102. See S.I. 1974, No. 2211, at § 5(1)-(4). Further, an outbreak or suspected outbreak of rabies or any other serious animal disease in the quarantine premises may prolong the quarantine period. See id. § 5(5); see also Department of Agriculture and Food, Government of Ireland, Importation of Dogs and Cats (last modified Jan. 21, 1998) <wysisyg://75/http://www.irlgov.ie/daff/import.htm>.

103. S.I. 1974, No. 2211, at § 6. The Order provides for an exception to the vaccination requirement for dogs or cats which have imported for research purposes. *Id.* § 6(2).

104. Id. §§ 12-14. Pets are under the control of the quarantine kennel owner for six months; the pet owners have no rights. See Passports For Pets, Quarantine - The Facts (visited Feb. 3, 1998) <a href="http://freespace.virgin.net/passports.forpets-/thefacts.html">http://freespace.virgin.net/passports.forpets-/thefacts.html</a> [hereinafter Quarantine - The Facts].

105. See PASSPORTS FOR PETS, supra note 94. Between 1972 and 1996, 200,000 dogs and cats were subjected to quarantine; 3,000 died — not one from rabies. See Quarantine - The Facts, supra note 102. Each year, over 9,000 pets arrive in Great Britain (half are from the United States), with only 80 quarantine kennels to house them. See Julia Duin, British Pet Quarantine 'Cruel,' Say Those Trying to Amend Law, WASH. TIMES, Jan. 9, 1998, available in 1998 WL 3436749.

106. MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, VOLUNTARY CODE OF PRACTICE - THE WELFARE OF DOGS AND CATS IN QUARANTINE PREMISES (1995) [hereinafter VOLUNTARY CODE]. Kennel owners are asked to sign up to the Code, and those that sign up are noted in the literature sent to pet owners who intend to import their pets. See UK: Ministry of Agriculture, Fisheries and Food -

<sup>99.</sup> Id.

<sup>100.</sup> S.I. 1974, No. 2211.

<sup>101.</sup> See MAFF, supra note 61, at 6. For importation purposes, "pet" refers to any dog, cat or other mammal which has not been permanently kept on the premises where it was born. See id. Guide dogs, guard dogs and sniffer dogs fall into this category. Id.

offers guidance for the transportation to quarantine premises, as well as moves within quarantine premises.<sup>107</sup> Also, the Code provides guidance for the recommended size of the units which accommodate the animals, as well as feeding and management requirements.<sup>108</sup> The Code is designed to improve standards for pets by allowing owners to choose kennels which adhere to its guidelines.<sup>109</sup>

#### B. What is Wrong With the Present State of Britain's Law?

Although such measures as the Voluntary Code of Practice have been effected to insure that the practice of quarantining animals remains a safe means of rabies prevention, the law continues to be questioned regarding its effectiveness as well as usefulness. Many opponents point to the fact that inoculations against rabies are an effective means of rabies prevention, and that blood tests can be used to check that both inoculations have taken place and that they have worked.<sup>110</sup> However, British laws on quarantine were in force well before vaccinations for rabies and counterchecks existed.<sup>111</sup> A major criticism of the law is that it has not adapted to these technological advances and has therefore outlived its usefulness.<sup>112</sup>

112. Id.

1998]

Quarantine Kennels, REUTER TEXTLINE, Oct. 4, 1996, available in LEXIS, Europe Library, Alleur File [hereinafter Kennels]. Therefore, pet owners can be assured that the kennels they choose adhere to high standards. Id. But see Passports For Pets, 20 Questions About Quarantine (visited Feb 4, 1998) <a href="http://freespace.virgin.net/passports.forpets/20questions.html">http://freespace.virgin.net/passports.forpets/20questions.html</a>) (stating that in all kennels, the animals are kept in cages with small runs on concrete floors, with no possibility of exercise, grass, or contact with other animals). MAFF approves the kennels and makes quarterly visits to assure the security of the premises, but denies responsibility for the animals. Id. Furthermore, independent veterinarians are not allowed into the kennels. See Duin, supra note 105.

<sup>107.</sup> VOLUNTARY CODE, supra note 106, at 2.

<sup>108.</sup> Id. at 2-4. The recommended minimum measurements for the units are as follows: for small dogs (less than 26 lbs.) - 12 square feet, with 40 square feet of exercise area; for medium dogs (26 to 66 lbs.) - 16 square feet, with 60 square feet of exercise area; and for large dogs (more than 66 lbs.) - 16 square feet, with 80 square feet of exercise area. Id. at 2.

<sup>109.</sup> See Kennels, supra note 106. Further, in the context of a dispute between a pet owner and kennel owner, the Code may be referred to in a civil action as part of the contract between the parties. See VOLUNTARY CODE, supra note 106, at 1.

<sup>110.</sup> See Sandra Barwick, Britain in Doghouse Over Quarantine After the Case of the Envoy's Spaniel, Sandra Barwick Reports on the Row Behind the Anti-Rabies Regulations, DAILY TELEGRAPH (London), Sept. 26, 1996, available in 1996 WL 3980870.

<sup>111.</sup> Id.

In addition, Britain's quarantine law ignores the entry of other possible rabies-infected animals besides domestic pets. The law does not apply to cattle or horses, which are also capable of carrying rabies.<sup>113</sup> Precautions were taken with the construction of the tunnel underneath the English Channel to prevent the spread of rabies via the land link between France and England.<sup>114</sup> However, the disease has still managed to find its way into the country, most recently by a rabid bat that was found on Britain's southern coast.<sup>115</sup> Thousands of disease-free pets must go through the agony of six months in guarantine while rabies creeps into the country by a completely different route.<sup>116</sup> The bat, described as a Dawbenton's Bat, is known to regularly overfly the English Channel.<sup>117</sup> Also, ferries that cross the English Channel daily create the possibility for other rabid animals to sneak across as well.<sup>118</sup> Britain's quarantine law ignores the possibility of rabies entering the country by such animals. It is almost impossible to stop an infected bat from flying across the Channel.

Another criticism of Britain's law is the high costs that the pet owner must bear in not only transporting the pet but in quarantining the pet as well. The costs of quarantine can run over \$3,000 (U.S.) to the average pet owner.<sup>119</sup> In some cases, the cost of quarantine may not include some basic necessities such as heat or bathing, and these additional costs must be borne by the pet owner.<sup>120</sup> Additional costs may also include airport charges, veterinary fees, supplemental diets and insurance.<sup>121</sup> Researching

<sup>113.</sup> Hoggart, supra note 95.

<sup>114.</sup> MAFF, *supra* note 61, at 3. The tunnel is designed to prevent stray animals from getting across. *Id.* Other preventative measures include physical barriers, electrified grids, vigorous cleaning programs, baited traps, a surveillance and reporting system and sealed trains to prevent the build-up of trash. *Id.* 

<sup>115.</sup> Bat Brings First Rabies to Britain For 74 Years, IRISH TIMES, June 8, 1996, available in 1996 WL 10576063 [hereinafter Bat].

<sup>116.</sup> Peter Popham, Six Months in Jail... If They Live That Long. Why?, INDEP. (London), Aug. 19, 1996, available in 1996 WL 10952740.

<sup>117.</sup> See Bat, supra note 115.

<sup>118.</sup> David Wallen, Pets at a Mercy of a Rabid Absurdity, SOUTH CHINA MORNING POST, Sept. 28, 1996, available in 1996 LEXIS, Asiapc Library, Curnws File. "It is perfectly conceivable for a rabid cat to sneak aboard any of the thousands of freight containers that arrive every day." *Id.* 

<sup>119.</sup> UK's Rabies Law, supra note 2. The cost runs about \$3,150 (U.S.) in kennels wherein the owner is allowed to visit her pet. Id.

<sup>120.</sup> See MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, REQUIREMENTS FOR BRINGING A DOMESTIC DOG OR CAT INTO THE UNITED KINGDOM 3 (1996).

<sup>121.</sup> Id. The charge for picking up the pet at the airport by kennel personnel can run up to \$500 (U.S.) See Duin, supra note 105.

the numerous quarantine premises and arranging contracts with kennel owners may also be a time-consuming and costly consequence of taking a pet abroad. The quarantine kennel business is a multi-million-dollar business, and a large population of quarantine law supporters comes from those proprietors who make their money from suffering pets and pet owners.<sup>122</sup>

Another negative effect of Britain's quarantine law is that it causes the widespread smuggling of animals by owners who wish to evade the six-month quarantine requirement.<sup>123</sup> In effect, Britain's quarantine law is somewhat paradoxical: while the law seeks to protect against the spread of the disease, the high costs associated with compliance with the law lead to widespread animal smuggling, thereby allowing infected animals to enter the country virtually undetected.<sup>124</sup> The high cost of kennels is the biggest inducement to smuggling.<sup>125</sup> Owners who oppose their pet being caged for six months because they simply wish not to subject their pet to such cruelty also have a high incentive for smuggling their pets in and out of the country.<sup>126</sup> Many law-breaking pet owners have had their pets vaccinated and blood-tested and can prove that their pets are rabies-free; however, a serious threat remains from pet owners who smuggle their pets into Britain without vaccines from countries where the virus is rampant.<sup>127</sup>

Furthermore, the law does not make any exceptions for blind and deaf persons who rely on guide dogs.<sup>128</sup> The law also does not make any exceptions for sniffer dogs and trained rescue dogs.<sup>129</sup> Sniffer dogs are trained in Great Britain for earthquake rescue work, and when they leave the country, they too must go into six-month quarantine when they return.<sup>130</sup> Not only are these animals prevented from providing their services for an

<sup>122.</sup> Barwick, supra note 111. Kennel owners in Great Britain share in a \$16 million-a-year business. See Marco R. Della Cava, Pet Lovers: British Quarantine Law is Outdated, Beastly, USA TODAY, Mar. 10, 1997, available in 1997 WL 6996520.

<sup>123.</sup> See Emily Moore, I Wanna Go Home, THE GUARDIAN, Oct. 14, 1997, available in 1997 WL 1473580. Customs officials believe that up to 100 pets a week are smuggled into the country. Id.

<sup>124.</sup> See Wallen, supra note 118. A pet can be smuggled via car simply by sedating the animal. *Id.* 

<sup>125.</sup> Barwick, supra note 111.

<sup>126.</sup> UK's Rabies Law, supra note 2.

<sup>127.</sup> Id.

<sup>128.</sup> Barwick, supra note 111.

<sup>129.</sup> Id.

<sup>130.</sup> Wallen, supra note 118.

extended period of time, but they also experience seriously detrimental and costly effects on their professional training.<sup>131</sup>

Finally, many supporters of quarantine law reform in Great Britain simply oppose the harshness and cruelty that the animals face as an inevitable consequence of the six-month requirement. An average of ten pets die each month from diseases they catch while in quarantine or from "loneliness."<sup>132</sup> Even kennels that follow high standards for the welfare of animals while in quarantine cannot guard against the stress from separation from loved ones and other psychological and physical ailments that seem to accompany the extended confinement. Animals are confined in pens and are not allowed to roam freely.<sup>133</sup> One London veterinarian states: "[C]ats and dogs obviously suffer in quarantine, and it doesn't matter how luxurious the surroundings. Lock a cat or dog up for six months, and at the end, it is unwell."<sup>134</sup>

One pet owner described the nightmare of visiting a quarantine kennel upon her family's decision to move to England after her husband's retirement from the military: "Big dogs, crammed into tiny cages, hurled themselves at me as I walked past. There was one kennel maid doing the work of half a dozen. The dogs were going out of their minds. I got back to the bus stop, and I just cried."<sup>135</sup>

The reality of the British system is that thousands of diseasefree, healthy animals enter quarantine, and many die or fall ill during the six-month confinement or shortly thereafter. Whether the cause of these fatalities can be blamed on unsanitary kennel conditions, the animal's lack of physical mobility and exercise for six months, or simply the stress of separation from loved ones, these reasons alone merit a change in the present system especially when more humane rabies-prevention methods are available that are equally, if not more, effective.

Opponents to the British law ask: "Alternative systems work elsewhere; why not here?"<sup>136</sup>

<sup>131.</sup> See id.

<sup>132.</sup> Sylvester, supra note 6.

<sup>133.</sup> UK's Rabies Law, supra note 2.

<sup>134.</sup> Popham, supra note 116.

<sup>135.</sup> Id. The Thompson's dog, Sadie, died half-way through the quarantine period. Id. The autopsy revealed that she suffered from liver failure. Id.

<sup>136.</sup> *Id.* The quarantine period in Japan is fourteen days. *See* Duin, *supra* note 105. Australia, New Zealand and most recently, the state of Hawaii, quarantine pets for one month. *See id.* 

### C. Alternatives to the Six-Month Quarantine

British quarantine has received much publicity as a result of many high-profile figures voicing opposition to the system. Many political figures who wish to travel to and from Great Britain with their pets have pledged their support for reform.<sup>137</sup> Former governor of Hong Kong Chris Patten has called the British law "absurd [and] outdated... without scientific basis."<sup>138</sup> Military personnel, diplomats, journalists and businessmen are also on the forefront of reform, as these groups own most pets subjected to British quarantine.<sup>139</sup>

Alternatives to quarantine have been proposed in an effort to develop an equally effective, yet more humane approach to rabies prevention. Passports For Pets advocates such an alternative system to the British law.<sup>140</sup> The group concedes the need for a system that guarantees Britain's rabies-free status, but it believes that the present system is not the one.<sup>141</sup> Passports For Pets supports a system of vaccination with a modern inactivated vaccine, an antibody test to check the level of protection, an unambiguous form of identification by microchip or tattoo, and if necessary, a six-month delay to guard against pre-incubation of the rabies virus.<sup>142</sup> This information, along with other routine vaccinations, is recorded in a "passport" which enables pets and their owners to

<sup>137.</sup> See, e.g., Hong Kong Governor Says Pet Laws Absurd, REUTERS WORLD SERVICE, July 8, 1996, available in LEXIS, Asiapc Library, Curnws File [hereinafter Hong Kong Governor].

<sup>138.</sup> Hong Kong Governor, supra note 137. After Hong Kong reverted to Chinese rule in 1997, Governor Patten chose to return to France instead of England so that his two dogs, Whisky and Soda, would be spared the six-month quarantine. See Duin, supra note 105. Patten's wife stated, "There are a lot of people in France who are not coming back to the U.K. because of quarantine." Id.

<sup>139.</sup> See id.

<sup>140.</sup> See PASSPORTS FOR PETS, supra note 94. Headed by Lady Mary Fretwell, Passports For Pets is a voluntary organization with 1,500 fee-paying members in opposition to Britain's quarantine laws. See Oliver Bennett, Travel: New Protest Over Pet Quarantine, DAILY TELEGRAPH (London), Nov. 25, 1995, available in 1995 WL 8051545.

<sup>141.</sup> See PASSPORTS FOR PETS, supra note 94.

<sup>142.</sup> Id. In October, 1996, the RSPCA hosted a national quarantine conference following a year-long review of the existing system. See Passports For Pets, RSPCA News (visited Feb. 4, 1998) <a href="http://freespace.virgin.net/passports.forpets/rspca.html">http://freespace.virgin.net/passports.forpets/rspca.html</a>. The review revealed that if properly implemented and enforced, a system based on vaccination, blood testing and microchipping could produce a more humane and effective system for rabies prevention. Id.

travel abroad freely, either to or from England.<sup>143</sup> Quarantine would no longer be a requirement.<sup>144</sup>

The introduction of pet passports is being made easier with the "Identichip."<sup>145</sup> Introduced five years ago by VDC, an animal drugs and products group, this microchip is tagged to the animal's ear or implanted just beneath the skin and allows a pet's identity number to be entered on a central register run by the Kennel Club.<sup>146</sup> Presently, over 270,000 British pets are covered by the system, although approximately fifteen million more pets could be "chipped."<sup>147</sup>

#### D. Quarantine Exemption For Commercially Traded Pets: Britain's First Step

Since the British quarantine law has remained in force for almost a century, lifting the six-month requirement for all domestic pets will be a slow and tedious process at best. However, the government has begun to open the doors, starting with commercially traded animals.<sup>148</sup> In October 1994, a Commons all-party agriculture select committee called unanimously for quarantine laws to be dropped in favor of a vaccination scheme.<sup>149</sup> As a result, the British government made one exception to the quarantine law for commercially traded dogs and cats.<sup>150</sup> Such animals are now able to escape quarantine, provided they are identified and vaccinated.<sup>151</sup> In addition, these animals must undergo blood tests and must not have had any contact with wild animals.<sup>152</sup> Further, the breeder has to certify that the animal is free from

151. See id.

<sup>143.</sup> PASSPORTS FOR PETS, *supra* note 94. Those not wanting to travel would be unaffected. *Id.* 

<sup>144.</sup> *Id.* However, quarantine would still be required for pets that fail the blood tests and also for pets coming into Great Britain from countries where rabies is prevalent. *See id.* 

<sup>145.</sup> See Pam Spooner, Financial Mail (The Midas Column): VDC. Still Time to Home [sic] in on the Pet Travel Tip, THE MAIL ON SUNDAY, Aug. 8, 1996, available in 1996 WL 8286225.

<sup>146.</sup> Id.

<sup>147.</sup> Id.

<sup>148.</sup> See Barwick, supra note 110.

<sup>149.</sup> Id.

<sup>150.</sup> See S.I. 1994, No. 1716 (Amendment) (allowing the importation of commercially traded dogs and cats from other Member States of the European Union, without quarantine but subject to very strict conditions).

<sup>152.</sup> Id. For a discussion of the amendment, see No Quarantine For Euro-Dogs... and Cats, THE PRESS ASSOC. LTD., July 1, 1994, available in LEXIS, Enggen Library, Statis File.

contact with wild animals and veterinary inspectors in Great Britain have to rely on the breeder's honesty.<sup>153</sup> With the government's concession for commercially traded pets, pressure groups point to the fact that many animals are already entering Great Britain without having to undergo quarantine.<sup>154</sup>

The Pressure is on British Lawmakers.-On October 2, 1. 1997, Parliament announced the Advisory Group on Ouarantine (AGQ), which was set up to assess the risk of the introduction of rabies into Great Britain under the current prevention system and under alternative policies.<sup>155</sup> There are currently five policies being assessed by the AGQ. Option (a) seeks to maintain the existing six-month quarantine requirement.<sup>156</sup> Option (b) calls for a reduction in the length of time animals are required to spend in quarantine.157 Options (c) and (d) would allow animals, in particular those from European Union Member States and certain rabies-free countries, into the country if reliable alternative assurances can be obtained through restrictions based on identification, vaccination, blood testing, certification and a system of checks after entry.<sup>158</sup> Options (e) and (f) seek to abolish quarantine altogether.159

While this scientific assessment takes place,<sup>160</sup> the existing quarantine system continues to be strictly enforced. However, the formation of the AGQ represents a major milestone for quarantine reformers. Agriculture Minister Jack Cunningham recognizes that

<sup>153.</sup> See id.

<sup>154.</sup> See Popham, supra note 116.

<sup>155.</sup> See MAFF, New Appointments to the Advisory Group on Quarantine (visited Feb. 4, 1998) <a href="http://www.maff.gov.uk/inf/newsrel/1998/980119a.htm">http://www.maff.gov.uk/inf/newsrel/1998/980119a.htm</a> [hereinafter AGQ]. The group will also advise on the practical aspects of enforcement of each alternate policy, advise on the costs and benefits of each policy, and look at the risk of introducing other animal diseases transmissible to humans. *Id.* 

<sup>156.</sup> Id.

<sup>157.</sup> Id.

<sup>158.</sup> Id. Option (c) calls for checks to be made at the point of entry, whereas under option (d), checks would be made away from the point of entry in approved reception areas. See AGQ, supra note 154. Under both (c) and (d), animals would undergo the six months in quarantine if assurances cannot be met. Id.

<sup>159.</sup> Id. Under option (e), imported animals only would be subjected to preentry vaccination, whereas under option (f), all domestic cats and dogs would be vaccinated. Id.

<sup>160.</sup> Studies were still in progress at the time of the writing of this Comment.

"other options exist and it is time to take a fresh look at the system."<sup>161</sup>

#### IV. Hawaii: The Trend For Shorter Quarantine

The nightmare of prolonged quarantine was also a reality in the United States, until this past year. Hawaii is also considered rabies-free.<sup>162</sup> Like Great Britain, Hawaii, before 1997, mandated that pets entering the state be quarantined for an extended period. While Hawaii's law required a shorter quarantine of four months, the law faced some of the same opposition that the British government is presently trying to handle. Like the British government, lawmakers in Hawaii tried to justify the four-month quarantine by drawing attention to its success in keeping rabies out of the state.<sup>163</sup> However, the controversy continued in Hawaii and lawmakers recognized the need for reform.

Notably, Hawaii's pre-1997 law received much attention regarding the quarantining of guide dogs. Although the law was a public health measure that applied equally to all persons entering the state with dogs, enforcement of the law has been found to burden persons with visual impairments more greatly than others because of their dependence on seeing-eye dogs.<sup>164</sup> Subjecting guide dogs to the quarantine requirement in effect denied persons who use guide dogs meaningful access to state services, programs and activities, and therefore discriminated against such persons because of their disability.<sup>165</sup> Consequently, the state recognized the need for quarantine law reform via the judicial system and the state legislature. Using a guide dog exemption as their starting point, the state has now shortened the four-month quarantine to thirty days for all dogs entering the state who meet certain strict requirements.<sup>166</sup>

<sup>161.</sup> See MAFF, Science Will Point Way Forward on Quarantine (visited Feb. 4, 1998) <a href="http://freespace.virgin.net/passports.forpets/maffnews.html">http://freespace.virgin.net/passports.forpets/maffnews.html</a>.

<sup>162.</sup> See supra note 91 and accompanying text.

<sup>163.</sup> See Rabies - Hawaii, supra note 80.

<sup>164.</sup> See Mobility/Access, supra note 9.

<sup>165.</sup> Id.

<sup>166.</sup> See supra note 8 and accompanying text.

#### A. Crowder v. Kitagawa—Support for the Guide Dog Exemption

The need to recognize a guide dog exemption was highlighted by the Ninth Circuit decision in *Crowder v. Kitagawa*.<sup>167</sup> In this case, the plaintiffs, who were visually impaired, demonstrated their reliance upon their guide dogs in assisting them in public streets and in using public transportation systems.<sup>168</sup> They also contended that without their guide dogs, they were severely restricted in their ability to use state services.<sup>169</sup> In addition, the plaintiffs argued that the 120-day quarantine requirement had detrimental effects on their guide dogs' valuable training.<sup>170</sup>

In support of their position on modifying the quarantine requirement, the plaintiffs contended that more effective alternative means were available to prevent the importation of rabies by guide dogs.<sup>171</sup> Such alternatives included a vaccine-based system involving the administration of inactive vaccines by veterinarians who can then certify that the vaccinations have taken place by using an identifying system of microchips.<sup>172</sup> The animals could then be tested before admission into the state by use of rabies virus antibody titers to ensure against the disease.<sup>173</sup>

The Ninth Circuit concluded that there was strong enough evidence in support of the plaintiffs to find that a question of fact existed as to whether the plaintiffs' proposed alternatives were "reasonable modifications" under the terms of the Americans With Disabilities Act and implementing regulations.<sup>174</sup> Therefore, the Ninth Circuit reversed summary judgment in favor of the state of Hawaii and remanded the case for findings of fact on the nature of rabies, the extent of the risk posed by the disease and the probability that guide dogs would spread the disease.<sup>175</sup>

1. Act 293—An Alternative to Quarantine for Persons Who Use Guide Dogs.—The plaintiffs' proposed alternatives as outlined

<sup>167. 81</sup> F.3d at 1480 (holding that without reasonable modifications to its quarantine requirements for the benefit of visually impaired persons who rely on guide dogs, Hawaii's quarantine law prevents such persons from enjoying the benefits of state services and activities in violation of the ADA).

<sup>168.</sup> Id. at 1482.

<sup>169.</sup> Id.

<sup>170.</sup> Id.

<sup>171.</sup> Id.

<sup>172.</sup> Crowder, 81 F.3d at 1482.

<sup>173.</sup> Id.

<sup>174.</sup> Id. at 1485.

<sup>175.</sup> Id.

above were not welcomed with open arms by the state legislature. In fact, because there were conflicting medical and scientific opinions regarding the efficacy of vaccine-based alternatives, the legislature did not begin to enact changes to the quarantine or the modifications<sup>176</sup> already in place for the visually-impaired until two months *after* the Ninth Circuit remanded the *Crowder* case to the district court.<sup>177</sup>

On June 24, 1996, Act 293 was approved, marking a significant milestone in quarantine law reform in Hawaii.<sup>178</sup> While the Act recognized the need for animal quarantine to maintain the public's safety, the Act also recognized the need for the law's flexibility so that persons who use guide dogs would not be impeded from travel in and out of the state.<sup>179</sup> Planned as a temporary program to assess the efficacy of a vaccine-based alternative, the law required a thirty-day quarantine, two vaccinations with a monovalent inactivated rabies vaccine administered by a veterinarian prior to entry into the state,<sup>180</sup> a health certificate endorsed by an accredited veterinarian,<sup>181</sup> an official microchip implanted in the animal, and a pre-entry as well as post-entry antibody test.<sup>182</sup>

178. 1996 Haw. Sess. Laws 293 at §§ 1-2; see supra note 16 and accompanying text. While this Act was intended to be a temporary one-year program, at the time of the writing of this Comment results from the Department of Agriculture's evaluation of the Hawaii's quarantine requirement were not yet available.

<sup>176.</sup> See supra notes 11-17 and accompanying text..

<sup>177.</sup> See 1996 Haw. Sess. Laws 293 §§ 1-2; see also supra note 16 and accompanying text. Prior to this enactment, a pilot program was considered by the state that would allow Hawaii residents to travel in and out of the state with their guide dogs, without placing their dogs in quarantine. See Rabies - Hawaii, supra note 80, at 100. Such a program would require a rabies vaccination administered by the Department of Agriculture and proof of titers. Id. Upon return to the state, the animal would be re-tested and subjected to quarantine only until the laboratory results were available. Id. The costs of such a program would be borne by the owner of the guide dog. Id.

<sup>179. 1996</sup> Haw. Sess. Laws 293 at §§ 1-2.

<sup>180.</sup> Id. The first vaccination required administering before the dog was three months old, and the second or subsequent vaccinations required administering less than six months following the first vaccination and not less than three months nor more than five months prior to the dog's entry into the state. Id. at

<sup>181.</sup> *Id.* The certificate, in English, required the following information: the name, lot number and expiration date of the vaccine administered, and the route of administration. *Id.* 

<sup>182. 1996</sup> Haw. Sess. Laws 293 at § 2. Act 293 required that the pre-entry test be conducted not less than three months and not more than twelve months prior to the dog's entry into the state. *Id.* Further, the Act called for the immediate detention of the dog upon re-entry into the state for antirabies testing. *Id.* If the titer was equal to or greater than 0.5I.U./ml, the dog would be released from quarantine after thirty days. *Id.* Any dog not showing an adequate titer would be quarantined for 120 days. *Id.* 

#### B. Thirty-Day Quarantine for ALL Dogs Entering Hawaii

Using the guide dog exemption as a starting point, the state of Hawaii recently applied the thirty-day quarantine requirement across the board, covering all dogs and not just those used to help the visually impaired.<sup>183</sup> While not every pet will meet the new quarantine requirements, the Hawaii Department of Agriculture estimates that only about 30% of pets entering the state will have to undergo the longer 120-day quarantine.<sup>184</sup> The new requirement was negotiated among the state government, the Pacific Regional Veterinary Command, and the Army Veterinary Command.<sup>185</sup> At public hearings regarding the new quarantine plan, 161 people testified on the issue, with 143 favoring the reduction to thirty days, and eighteen people opposing it.<sup>186</sup>

Approved by Hawaii Governor Ben Cayetano on May 13, 1997,<sup>187</sup> the new rule which took effect on May 23, 1997, calls for strict requirements in order for pets entering the country to be subjected to the shorter thirty-day quarantine.<sup>188</sup> In pertinent part, the new rule calls for a vaccination scheme and testing for rabies antibodies, pre- and post-entry, in order to qualify for the shorter thirty-day quarantine requirement.<sup>189</sup> Governor Cayetano stated that "[a]fter 85 years, [Hawaii] is finally able to make way for an improved prevention program in maintaining [its] rabies-free status."<sup>190</sup>

1. Will This Change in the Law Keep Hawaii Safe?—The change in Hawaii's quarantine law did not come to fruition without its share of controversy. In fact, many medical doctors and

<sup>183.</sup> See supra note 8 and accompanying text.

<sup>184.</sup> See Change to Hawaii Pet Quarantine (visited Feb. 6, 1998) <http://www.usarpac.army.mil/docs/PetQuaran.htm>. The costs associated with the new rule are as follows: dogs are \$7.00 a day and cats are \$6.50 a day, plus \$25.00 for registration and a \$10.00 health record fee. Sig Christianson, Fort Sam Shortens Hawaii-bound Pets' Jail Time, SAN ANTONIO EXPRESS-NEWS, Aug. 16, 1997, available in 1997 WL 13203056.

<sup>185.</sup> Id.

<sup>186.</sup> See Harold Morse, Pet Owners Rejoice: Quarantine is Cut to 30 Days, STAR-BULLETIN (1997) <a href="http://starbulletin.com/97/01/24/news/story7.html">http://starbulletin.com/97/01/24/news/story7.html</a> (quoting Ann Takiguchi, spokeswoman for the Department of Agriculture).

<sup>187.</sup> See Despite Concerns, supra note 8.

<sup>188.</sup> See HAW. ADMIN. RULES at § 4-29.8.1.

<sup>189.</sup> Id. In fact, the new law sets forth provisions that mirror those found in Act 293. Compare 1996 Haw. Sess. Laws at §§ 1-2.

<sup>190.</sup> Despite Concerns, supra note 8.

veterinarians consider the change unsafe.<sup>191</sup> Significantly, it only takes one animal carrying rabies to slip through and bring the disease back to the state, thereby compromising Hawaii's rabies-free status. Further, since the incubation time for rabies may range from a few weeks to a year, the thirty-day quarantine may not be adequate.<sup>192</sup> Thus, the risk for rabies could increase with the quarantine time change. In addition, the state has a potentially large reservoir population of rabies, which is part of the history behind Hawaii's implementation of a 120-day quarantine eighty-three years ago.<sup>193</sup>

While recent scientific advances in serological testing provided a scientific basis to develop the alternative rabies prevention plan, many experts are still concerned regarding the efficacy of the OIE fluorescent antibody virus neutralization (FAVN) test which is used for the mandatory antibody test, both pre- and post-arrival into the state.<sup>194</sup> According to Dr. Berin, an expert on rabies in the tropics and a WHO rabies consultant, neither the FAVN test or the REFIT test (which is another test available to test for rabies antibodies) can be used to determine whether antibodies that are detected are the result of vaccination or incubation of rabies.<sup>195</sup> Further, neither the FAVN test nor the REFIT test can detect infections caused by rabies virus strains associated with long incubation periods; thus, animals incubating such infections may not indicate a positive test result.<sup>196</sup> Additionally, Hawaii's change in the law does not make special considerations for young animals which tend to exhibit significant variations in their incubation periods for the disease.<sup>197</sup>

Perhaps the biggest criticism regarding the change in Hawaii's quarantine law is that Governor Cayetano made his decision

195. Id.

196. See Lopez, supra note 192.

<sup>191.</sup> See id.

<sup>192.</sup> See Morse, supra note 185.

<sup>193.</sup> See Tarsis Lopez, *Quarantine Changes Take Effect in Hawaii*, J. AM. VET. M. ASSOC. NEWS, Oct. 1, 1997 <a href="http://www.avma.org.onlnews/javma/oct97/s100197a.htm">http://www.avma.org.onlnews/javma/oct97/s100197a.htm</a>>.

<sup>194.</sup> Id. Accoding to Dr. Russell, a professor of veterinary medicine at the Texas A&M College of Veterinary Medicine and a past president of the American Veterinary Medical Association ("AVMA"), the FAVN test has not undergone intense peer evaluation and has not been proven to be more effective than the rabies fluorescent focus inhibition test ("REFIT"), which has been in use longer. Id. Further, the FAVN test is slightly more susceptible to serum cytotoxicity, and the REFIT test may be easier for laboratory personnel to read than the FAVN test. Id.

without a solid consensus of expert opinion.<sup>198</sup> According to Dr. Allen Miyahara, immediate past vice president of the AVMA and a Hawaii resident. Hawaii rushed into a decision that needed more investigation.<sup>199</sup> Because rabies is a life-threatening disease and because the state is rabies-free, it is understandable that a change in the law may scare Hawaii residents into thinking that the new system will not work as well as the old one. However, Hawaii residents need to give the new law a chance. It is unlikely that an expert consensus will ever be formed on the issue of rabies prevention because of the medical uncertainties about the FAVN and REFIT tests, as well as the benefits and drawbacks associated with both systems (the extended quarantine and the vaccinationbased system coupled with a shorter quarantine). However, science is always in a state of flux and a medical advancement today may be obsolete tomorrow. Although the present system of blood testing may not be able to determine whether antibodies are from an incubation of rabies, other checks are in place to combat this possibility. Such checks include mandatory rabies vaccinations and veterinary certification that these vaccinations have taken place. Further, it may be safe to assume that if an owner thinks enough about her pet to travel or vacation with it, then that pet is most likely well-cared-for and up-to-date with its vaccinations.

Most importantly, this program's success may indeed foster confidence in allowing guide dogs to completely forego the thirtyday requirement, which may soon become a reality in light of the recent *Crowder* developments. Change always brings about uncertainty. Until the new law is proven to be ineffective, the benefits in maintaining a shortened quarantine speak to its continued existence; it is a cost-effective, reliable and more humane system of rabies prevention.

V. What Direction Should Great Britain Take?

Now that Hawaii has implemented the shorter thirty-day requirement, supporters for quarantine reform in Great Britain are sure to increase pressure on British lawmakers for change. As previously mentioned, Great Britain's Advisory Group on Quarantine is currently assessing five policies as alternatives to their present six-month requirement.<sup>200</sup> According to Lady Fretwell of

<sup>198.</sup> Id.

<sup>199.</sup> Id.

<sup>200.</sup> See infra Part III, § D(1); see also AGQ, supra note 154.

Passports For Pets, option (c) presents the best alternative to the present system.<sup>201</sup> This alternative, involving identification, vaccination, blood tests, veterinary certification that the vaccinations have taken place and a system of post-entry checks, is currently the basis for the British amendment for commercially traded dogs and cats.<sup>202</sup> In addition, this alternative has been tried and tested in Sweden since 1994.<sup>203</sup> Sweden abolished quarantine for cats and dogs coming from most European countries.<sup>204</sup> The country utilizes pet passports whereby pet owners carry identity documents detailing their pet's vaccinations, coupled with the animal's identifying microchip.<sup>205</sup> Sweden now reports an apparent reduction in animal smuggling, and the system is proving to be as effective as quarantine at a fraction of the expense.<sup>206</sup>

However, this option still poses some questions as to whether or not it can maintain the country's rabies-free status. For example, many British lawmakers are hesitant to put the safety of their country in the hands of foreign veterinarians whose certificates, blood tests or microchips may be unreliable.<sup>207</sup> However, this problem can be solved by having a British official check the microchip and verify the authenticity of the pet's record.<sup>208</sup> In addition, limiting the designated ports of entry for pets can insure that all pets pass through inspection by a British official.<sup>209</sup> Furthermore, if the blood test is performed by an approved laboratory, there is little concern for error.

A reduction in the length of quarantine is also another option (option b) currently being assessed by the AGQ. This alternative, standing alone, would be contrary to Britain's statistics between the years 1922 to 1970: two animals were found to have rabies during

<sup>201.</sup> Lady Mary Fretwell, Passports For Pets Evidential Response to the Government's Advisory Group on Quarantine (visited Feb. 4, 1998) <a href="http://freespace-.virgin.net/passports.forpets/newsletter.html">http://freespace-.virgin.net/passports.forpets/newsletter.html</a>. Lady Fretwell describes this option as "quick, simple, safe and relatively cheap." Id.

<sup>202.</sup> Id. However, the amendment for commercially traded dogs and cats incorporates an additional provision requiring breeders to certify that the animal has not had any contact with wild animals. Id.

<sup>203.</sup> See Barwick, supra note 110.

<sup>204.</sup> Id.

<sup>205.</sup> See Popham, supra note 116.

<sup>206.</sup> See Barwick, supra note 110; see also Popham, supra note 116.

<sup>207.</sup> See Fretwell, supra note 201.

<sup>208.</sup> Id.

<sup>209.</sup> Id.

their last week of quarantine.<sup>210</sup> Further, critics argue that a reduction in quarantine time still poses a problem for pet owners and guide dog owners who wish to make short trips to and from Great Britain.<sup>211</sup>

In light of Hawaii's recent reduction in quarantine time coupled with a vaccination scheme, perhaps British lawmakers should look to the idea of combining options (b) and (c); that is, reducing its quarantine time while maintaining a system of identification, vaccination, blood testing, certification and a system of checks after entry.<sup>212</sup> In addition, a pre-entry blood test can also be required to check the level of antibodies before the animal enters the country. Upon arrival, the animal can remain in quarantine for thirty days so that the results of the post-entry blood test can be obtained. If the animal fails the blood test, or if any of the other requirements are not met, then the animal can be forced to spend the six months in quarantine.

This alternative seems to present a middle ground between those who wish to preserve the present British system, and those who wish to totally forego the quarantine requirement. In comparison to the six-month requirement, thirty days is a significantly shorter and more humane time period to separate pets and loved ones. The thirty-day requirement will insure that pets are isolated while awaiting results of the post-entry blood tests and if by chance they fail the test, they will justifiably have another five months "tacked on to their sentence."

Therefore, a change in Britain's present system may be best achieved by combining the positive aspects of both quarantine *and* vaccination. Great Britain is already experiencing success in allowing commercially traded dogs and cats into the country without quarantine, provided that, *inter alia*, they have been vaccinated, identified, certified and blood tested.<sup>213</sup> Therefore, the success of that program should support the idea of shortening quarantine for all other animals, coupled with a vaccination scheme. Significantly, the issue of guide dogs and sniffer dogs remains a large concern that any option currently under the AGQ's assessment, like the present state of quarantine law in Hawaii, does not seem to address. Hopefully, British lawmakers can appreciate the need for a guide dog and sniffer dog exemption and apply the

<sup>210.</sup> Id.

<sup>211.</sup> Id.

<sup>212.</sup> See supra notes 155-158 and accompanying text.

<sup>213.</sup> See supra note 149 and accompanying text.

policy behind the commercial breeder exemption to this important group of animals.

#### VI. Conclusion

Rabies prevention is a serious matter because of the lifethreatening aspect of the disease and because humans have close contacts with animals such as dogs and cats which can be potential carriers. The disease is so feared because an animal could be infected with the virus and remain symptom-free for months, thereby posing a threat to unsuspecting individuals.

Supporters of Great Britain's six-month requirement maintain that there is no reliable test at present that shows whether an animal is infected with rabies. The symptoms of the disease can usually only be identified when it is too late. Great Britain stands behind its quarantine policy in order to assure that the incubation period is over and that the animal is absolutely rabies-free and will not introduce the disease into the country. The system has been in place for almost a century, obviously proving its effectiveness. However, the technology has vastly improved since 1901 and Britain's government has not adapted to these changes. Instead, it continues to subject thousands of pets to the horrors of a six-month confinement when there are more humane methods designed to keep rabies out of the country.

The disease can now be effectively controlled with the use of vaccinations, identifying microchips, veterinarian certification, preand post-entry blood tests and a shortened quarantine period while results of the post-entry blood tests are being obtained. While shortening the quarantine period from six months to thirty days would place an economic burden on kennel owners who depend on this multi-million-dollar-industry for their livelihood, the benefits to pets and pet owners alike are numerous: the costs would be a small fraction of the six-month quarantine, pet owners would no longer have an incentive for animal smuggling and a decrease in this unlawful activity of animal smuggling would indirectly bolster the country's defenses against the disease. Perhaps the most valuable benefit of a change in the present system would be to the animals themselves, finally being spared the torture of a six-month confinement in cramped cages away from their loved ones.

Presently in the state of Hawaii, guide dogs are also subjected to a thirty-day quarantine which is applied across the board. While this requirement is certainly less burdensome than Britain's sixmonth requirement, any time spent in quarantine is difficult for those who rely on guide dogs for their daily activities. Putting such animals away for any period of time is essentially the same as asking the owner to put her life on hold as well. If Great Britain can make an exception for commercially traded dogs and cats, then certainly guide dogs and sniffer dogs present a more compelling need for such an exception. Also, if the state of Hawaii can apply the thirty-day requirement to all animals—a requirement which was once thought of as a "guide dog exemption"—then perhaps a guide dog exemption from the thirty-day requirement is not far from being a reality. After all, the state of Hawaii, through its legislature and judiciary, has already recognized the special needs of guide dogs and visually impaired individuals.

As far as Great Britain is concerned, change is sure to be a slow and tedious process given the number of years in which the current policy has been in force. However, if the government considers a shortened quarantine period coupled with a vaccination scheme, then perhaps lawmakers would be more open to change. While a thirty-day requirement would still burden those who wish to go on short trips to and from Great Britain with their pets, it seems as if compromise may be the key to success here. The thirty-day requirement would greatly ease the burden on military families, government officials or those moving abroad, and these groups of people seem to own the most animals that are currently being subjected to the six-month quarantine. For the rest of us, leaving our pets at home while we vacation abroad for a few weeks may be a small price to pay for Britain's assurance that its country remains rabies-free. Hopefully, one day quarantine will be a thing of the past. Until that day comes, the British government should continue to listen to supporters of quarantine reform, because without them, animals would not have a voice in policy-making which effects their freedom and liberty.

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