ARTICLE IN PRESS

American Journal of Infection Control xxx (xxxx) xxx-xxx



Contents lists available at ScienceDirect

American Journal of Infection Control



journal homepage: www.ajicjournal.org

Brief Report

A survey of infection prevention and animal-assisted activity policies in health care facilities—United States, 2023

Michael A. Ben-Aderet MD^{a,*}, Souci Louis VMD, MPH^b, Jonathan D. Grein MD^a, Susan E. Beekmann RN, MPH^c, Philip M. Polgreen MD, MPH^c, Daniel Z. Uslan MD^d

^a Division of Infectious Diseases, Department of Medicine, Cedars-Sinai Medical Center, Los Angeles, CA

^b Epidemic Intelligence Service, Division of Infectious Disease Readiness and Innovation, Centers for Disease Control and Prevention, Atlanta, GA

^c Department of Internal Medicine, Division of Infectious Diseases, University of Iowa Carver College of Medicine, Iowa City, IA

^d Division of Infectious Diseases, Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA

Key Words: Animals Pet therapy Therapy animals In a survey of 104 US infectious disease specialists, 88% reported working in facilities that allow animalassisted activities or pet visitation. Variability existed in the species of animals allowed, restricted areas, and veterinary assessments, demonstrating a need to standardize infection prevention approaches across health care facilities to mitigate potential risks.

© 2024 Association for Professionals in Infection Control and Epidemiology, Inc. Published by Elsevier Inc. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

BACKGROUND

Animal-assisted activities (AAA) have been defined as "a broad term... used to describe the utilization of... animals in diverse manners beneficial to humans."¹ Infection prevention guidance for AAA in health care settings is provided by the Centers for Disease Control and Prevention (CDC), the Society for Healthcare Epidemiology of America, the Association for Professionals in Infection Control, and other organizations.^{2–4} Despite existing guidance, there continues to be heterogeneity in practices between facilities, even as animals in health care settings are becoming more prevalent.⁵

METHODS

The Emerging Infections Network, a network supported by the CDC and the Infectious Diseases Society of America composed of over 3,000 infectious disease specialists, supported a survey on this

E-mail address: Michael.ben-aderet@cshs.org (M.A. Ben-Aderet).

Conflicts of interest: None to report.

topic. This survey focused on the animal species, areas off-limits to animals, evaluations of animal health, and policies surrounding the visitation of personal pets to help assess the current level of variation in AAA and pet visitation (PV) in health care settings. A link to a 7-item electronic survey was sent to all members via the listserv 3 times on June 21, June 27, and July 5, 2023. Data were analyzed using SAS, version 9.4 (SAS Institute).

This activity was reviewed by the CDC and was conducted consistent with applicable federal law and CDC policy.

RESULTS

One hundred and four individuals responded between June 21 and July 10, 2023. Eighty-eight percent allow AAA, and the response from these respondents is summarized in Table 1.

Respondents represented community hospitals, nonuniversity teaching hospitals, university hospitals, Veterans Affairs or Department of Defense facilities, city/county/public hospitals, children's hospitals, and others. Thirty-four states were represented, with most respondents from California (n = 13).

Dogs were the most permitted animals for AAA (99%), while fewer facilities allowed cats (11%), horses (11%), reptiles (1%), and rabbits (1%); 1 comment mentioned horses in an off-site barn (a long-term care facility). Most facilities restrict areas for AAA, including operating rooms (83%), isolation rooms (75%), kitchens (70%), nurseries (50%), labor and delivery (46%), and Intensive care units (46%). A small number (3%) reported no restrictions, and it is unknown if facilities that did not report restrictions in specific areas

https://doi.org/10.1016/j.ajic.2024.06.024

0196-6553/© 2024 Association for Professionals in Infection Control and Epidemiology, Inc. Published by Elsevier Inc. All rights are reserved, including those for text and data mining, Al training, and similar technologies.

^{*} Address correspondence to Michael A. Ben-Aderet, MD, Cedars-Sinai Medical Center, 8635 W. 3rd St., Suite 1150 W, Los Angeles, CA 90048.

Funding/support: This work was funded by the Centers for Disease Control and Prevention (cooperative agreement no. 5, grant number NU50CK000574). §See e.g., 45 C.F.R. part 46, 21 C.F.R. part 56; 42 U.S.C. §241(d); 5 U.S.C. §552a; 44 U.S.C. §3501 et seq.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

ARTICLE IN PRESS

M.A. Ben-Aderet et al./American Journal of Infection Control xxx (xxxx) xxx-xxx

Table 1

Summary of the survey and the responses received

Question	Response	Number of respondents	Percentage
Question 1. Allow animal-assisted therapy	No	12	12%
	Yes	92	88%
Question 2. Animals permitted for AAA	Dogs	91	99%
	Cats	10	11%
	Miniature horses	9	10%
	Other	3	3%
Question 3. Areas considered "Off-Limits"	ORs	76	83%
	Isolation rooms	69	75%
	Kitchens	64	70%
	Nurseries	46	50%
	Labor & delivery	42	46%
	Intensive Care Unit	42	46%
	Restricted to outdoor areas	3	3%
	No restrictions	3	3%
Question 4a. Frequency of veterinary assessment	Twice per year	7	8%
	Yearly	49	53%
	Every other year	0	0%
	Other	22	24%
Question 4b. Additional screening cultures	Yes	11	12%
	No	70	76%
Question 5a. Allow personal pet visitation	Yes	37	40%
	No	53	58%
Question 5b. Personal pet types barred	Dogs	10	11%
	Cats	12	13%
	Birds	16	17%
	Amphibians	16	17%
	Reptiles	15	16%
	Rodents	15	16%
	No restrictions	8	9%
Question 6a. State of practice	Various states listed	-	-
Question 6b. Facility type	Community	20	22%
	Nonuniversity teaching	24	26%
	University	24	26%
	Veterans Affairs or Department of Defense	7	8%
	City/county/public	3	3%
	Free-standing children's	11	12%
	Outpatient only	0	0%
	Other	1	1%
	Not answered	2	2%

AAA, animal-assisted activities; OR, operating room.

allowed AAA in those areas or if they did not have those areas in their facilities. Variability was also seen in the required frequency of veterinary assessment: 53% of respondents require it annually, 8% biannually, 24% other, and 15% did not answer. One comment mentioned that requiring proof of vaccination or veterinary care was forbidden by legal counsel. Few respondents (12%) report requiring additional microbiologic screening. The majority (58%) of facilities allow no PV. Among the 40% of facilities that do, restrictions on species include dogs (11%), cats (13%), birds (17%), amphibians (17%), reptiles (16%), and rodents (16%) though some have no restrictions (9%). Comments from recipients included PV as a tool to improve patient satisfaction (1 comment), lack of PV policy (1 comment), pressure to increase PV (1 comment), and use of PV in end-of-life care or prolonged hospitalization (10 comments). No significant differences were seen in the answers to any question from academic centers, nonacademic centers, and children's hospitals.

There were 33 comments noted. Besides those listed above, these included enthusiasm for AAA and PV (3 comments) and some stating a lack of knowledge about facility policies by the respondent (6 comments). Two comments referenced service animals, which are a separate category legally defined by the Americans with Disabilities Act and not the subject of this inquiry.

CONCLUSIONS

The survey highlights concerns with the current infection prevention practice of AAA. Unsurprisingly, most health care facilities represented do permit AAA, underscoring the broad acceptance of companion animals in medical recovery and the human-animal bond. Previous reports have explored the health benefits of animals, including reduced depressive symptoms in dementia, decreased pain and irritation in pediatric oncology, and improvement of gross motor skills in pediatric cerebral palsy, among others.^{6–8} While there has never been a documented zoonoses from AAA in hospitals, these infections can be severe and include pathogens transmitted by contact, animal bites, ectoparasites, airborne, and droplet routes.⁹ In a survey of 102 healthy visitation dogs performed in Ontario, Canada, in 2004, potential pathogens were isolated from 80%.¹⁰ Findings from our survey suggest that the CDC and Society for Healthcare Epidemiology of America recommendations are inconsistently followed, increasing the infection risk of AAA in these facilities.

Despite recommendations to limit AAA to dogs, numerous facilities permit other species, broadening the range of possible infectious complications. In addition, facilities reported permitting AAA or PV in sterile environments like operating rooms or in food preparation areas. Possible explanations for these responses include differing facility types, including lower acuity or longterm care facilities, and/or confusion between policies for AAA, PV, and those for service animals or emotional support animals. Two comments specifically described service animals rather than AAA or PV, reinforcing this hypothesis. Confusion among health care professionals surrounding distinctions between service animals and those used for AAA or other purposes is unsurprising given the relatively recent rise in popularity of AAA; our survey suggests this is a significant issue that may lead to inconsistent policies. Our survey did not address who was responsible for the enforcement of existing policies, but given the challenges in categorization, this information would be helpful to include in future assessments.

The survey also highlighted the need to better standardize veterinary assessments for AAA. One model for such assessments is the United States Department of Agriculture's standardized certificate of veterinary inspection used for interstate travel with animals. This document includes identification of the animal and handler, vaccination status, and a statement that they are free from contagious diseases.¹¹ A similar standardized document could be developed for animal entry into health care facilities and encompass elements like animal species and breed selection, vaccination, screening, education, and other relevant issues.

This assessment reflects observed practice by members of the Emerging Infections Network rather than written policy alone. There were responses from most American states and diverse facility types, giving a snapshot of the current state of infection prevention as it relates to AAA and PV. AAA and PV are challenging for hospital infection prevention given the significant variability in practice; with increasing interest and demand, there is a need to standardize approaches to animals across healthcare facilities to mitigate potential risks.

Acknowledgments

The authors would like to thank Scott Santibanez and Jessica Ricaldi from the Centers for Disease Control and Prevention Division of Infectious Disease Readiness and Innovation for their valuable feedback and discussions regarding this manuscript.

References

- AVMA. Animal-assisted interventions: guidelines. Accessed September 27, 2023. https://www.avma.org/policies/animal-assisted-interventions-guidelines.
- Murthy R, Bearman G, Brown S, et al. Animals in healthcare facilities: recommendations to minimize potential risks. *Infect Control Hosp Epidemiol.* 2015;36:495–516.
- Centers for Disease Control and Prevention. H. animals in health-care facilities. Accessed September 27, 2023. https://www.cdc.gov/infectioncontrol/guidelines/ environmental/background/animals.html.
- Lefebvre SL, Golab GC, Christensen E, et al. Guidelines for animal-assisted interventions in health care facilities. Am J Infect Control. 2008;36:78–85.
- Linder DE, Siebens HC, Mueller MK, et al. Animal-assisted interventions: a national survey of health and safety policies in hospitals, eldercare facilities, and therapy animal organizations. Am J Infect Control. 2017;45:883–887.
- Lai NM, Chang SMW, Ng SS, et al. Animal-assisted therapy for dementia. Cochrane Database Syst Rev. 2019;11:CD013272.
- Silva NB, Osório FL. Impact of an animal-assisted therapy program on physiological and psychosocial variables of pediatric oncology patients. *PLoS One*. 2018;13:e0193771.
- Charry-Sánchez JD, Pradilla I, Talero-Gutiérrez C. Effectiveness of animal-assisted therapy in the pediatric population: systematic review and meta-analysis of controlled studies. J Dev Behav Pediatr. 2018;39:580–590.
- Ben-Aderet M, Murthy R. Epidemiology and prevention of healthcare-associated infections related to animals in the hospital. In: Weber DJ, Talbot TR, eds. Mayhall's Hospital Epidemiology and Infection Prevention. Lippincott Williams & Wilkins; 2020:358–368.
- Lefebvre SL, Waltner-Toews D, Peregrine AS, et al. Prevalence of zoonotic agents in dogs visiting hospitalized people in Ontario: implications for infection control. J Hosp Infect. 2006;62:458–466.
- CDFA. CVI requirements. Accessed September 27, 2023. https://www.cdfa.ca.gov/ ahfss/animal_health/pdfs/CVIRequirements.pdf.